DOMESTIC ENGINEERING

A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation

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## AMERICAN EFFICIENCY AMAZES THE HUNS.

SPEEDING up the war and carrying it to a triumphant climax for America and the Allies is the sentiment which has dominated the state and national conventions of the plumbing and heating trades during the past months. This sentiment has penetrated deep into the hearts of men in the trade. Every plumbing and heating contractor, worthy of the name of "American", realizes today that "Win the War!" is the most vital and dynamic phrase in the vocabulary of business.

"Kultur's" arrogant contempt for our military and naval efficiency, and its assertion that "Americans are only cannon fodder," has aroused the resentment of the men in the trade, who have sons or relatives in the service of America or who are hurling back the misguided Boche hordes.

The Hunnish newspapers are slowly beginning to realize the absurdity of their underestimation of American efficiency in the field of battle and upon the high seas.

"If the Kaiser will continue to instruct his newspapers in the Fatherland to hurl sarcasm at American troops," said a heating contractor, "he will do Uncle Sam a favor. It is astounding that the Germans are not wise enough to realize that this kind of fool sarcasm only stimulates our determination to whip the German army and whip it Right."

German editors will yet rue the day that they permitted silly fancy to control their intellectual faculties with regard to American efficiency. In dispatches from the front we learn that American troops are more than a match for the Boches and not the tin soldiers, that blind and prejudicial editorial opinion in Germany had disseminated.

C. H. Maloney, of Gary, Indiana, that vigorous association man, struck the keynote of collective sentiment among plumbing and heating contractors when he said on the floor of the National Convention at St. Louis: "We will make no compromise with Germany. We will consider no crafty diplomatic negotiations."

"Americans are cannon fodder! Americans are tin soldiers!" What an unpardonable insult to the flag which has been triumphant in many historical conflicts? The flag that inspired Washington, Grant and Sheridan as well as Commodore Perry, when he uttered those immortal words: "Don't Give Up The Ship Boys!"

The spirit of '76 and that of '61 are united with the spirit of world democracy. The most precious traditions of American heroism are being put to the test.

Let the Prussian fanatic rattle his sword and rave on as he reiterates his faith—"that Gott will favor our arms." The preposterous dream of Hunnish dominance will never be realized.

Defeat for America and the Allies is unthinkable. Defeat is a word that is foreign to our mental processes. Defeat for America and the Allies? Defeat at the hands of a clique of scheming, bloodthirsty fanatics who glory in bombing unprotected cities and who beseech Providence to assist them in the slaughter of more women and children? Suffice it to say that Uncle Sam acquired the victory habit in his youth, and habits early formed are hard to break.

It is apparent that the German people are now realizing that the Fatherland struck a bad snag when the policy of unrestricted submarine warfare was pursued without regard for the rights of neutral nations and humanity at large.

How Uncle Sam has been able to transport troops —a cool million or more—to France is puzzling the Teuton mind. The boasted supremacy of the U-boats has been set at naught by American efficiency. With slight losses America has answered the proud, but foolish sarcasm of the Hun editor that Germany had nothing to fear from the United States. Let the Hunnish press rave on. America is aroused and in action. The day of reckoning is coming.

# FUEL SAVING HEATING SYSTEMS

*Accelerated Systems of Hot Water Warming Afford Economy in Fuel When Properly Constructed*

*By* Alfred G. King

AN accelerated system of hot water heating is one of the recognized efficient and economical methods of warming. This system differs from the regular method of open tank gravity apparatus in that the circulation is accelerated, or helped, by some device placed on the system which quickens the circulation by the maintenance of a slight pressure upon it.

The circulation of hot water (open tank gravity system) as a method of warming has been practiced in this country with varying success since 1875 or 1880, and from this period on it can truthfully be said that the method has gained constantly in popular favor, and especially so for the warming of residences. At the present time the majority of the heating apparatus to be found in such buildings is hot water. It is but natural that we should ask why this is so, and whether the method is economical in fuel requirements? While it may be somewhat difficult to answer the first part of the question, an answer to the latter part is to be found in the ever increasing use of the method, and particularly so since the adoption and use of some of the present devices which accelerate or increase the velocity of the circulation. In the early stages of the application of the method its popularity was no doubt greatly enhanced by comparing it, and the results attained from its use, with steam heating in the ordinary form as formerly practiced. It was very early demonstrated that there was at that period no other method of heating by which a temperature so even could be maintained for a period of several hours without attending or recoaling the apparatus. The atmosphere within a building heated with hot water was found to be humid and healthful. These facts gave the hot water heating system a standing which has kept the method in such favor in the public mind that the number of hot water systems now installed exceeds those of all other methods.

To appreciate the improvements in the manner of erecting the systems it is necessary to go back to the beginning and note the various changes in methods and materials. The earliest of the hot water systems were constructed with large size cast iron pipe having joints caulked and rusted together. As soon as wrought tubing and threaded cast iron fittings were manufactured in this country, and were available, they quickly superseded cast iron piping in the construction of the hot water heating system, and likewise the old types of wrought "tube" and "pan" radiators were cast aside in favor of the more handsome and efficient ornamental cast iron radiators which followed with other improvements. No doubt these circumstances assisted materially in keeping hot water heating in the front line.

Years passed, during which period there was little or no further improvement in the system. It was realized that the system was slow to heat, and this fact was attributed to the method of piping then used. Then followed the method of running several flow and return pipes, one to each group of radiators, and it was not uncommon to find a job with ten or more separate flow and return pipes. The question of added friction in so much piping was not at that time considered, but later the plan of running out one or two main flow and return lines from the boiler was adopted, and of these systems thousands are still in use.

In connection with the later use of accelerating devices we may say that it was realized that with all methods of piping then in vogue, the common gravity, single main, or with the overhead systems, that it required both time and fuel to circulate the large body of water contained in the large piping and radiators then used. The use of the English, or Perkins method of circulating the water under pressure was found to be dangerous when used with the ordinary weight of iron in American made boilers, radiators, and fittings. Perkins method made use of small bore piping but the English made pipe and fittings were very heavy and to the American mind exceptionally clumsy. Some heating contractors had placed their hot water systems under a pressure by sealing the outlet of the expansion tank by placing a safety valve on the vent and overflow, and other similar methods were used, some with a degree of success and often with disastrous results. It was realized by many heating men—engineers and contractors—that provided the pressure on the system could not exceed a maximum of ten or fifteen pounds, it could be sealed with safety. It may be said that Yankee ingenuity solved the problem and several devices variously known as heat generators, heat economizers, heat retainers, etc., were developed and offered to the steam-fitting trade. These appliances were designed to hold the pressure in the system to ten or fifteen pounds and then to automatically relieve any further pressure which might accumulate. Many of the devices were highly successful, some of them being used by the thousands.

We have come to speak of systems on which these devices are used as "accelerated" systems, and it may be stated here that an accelerated system, properly planned and installed, is the most economical hot water system to install, is quick in circulation and results, and is fuel-saving and efficient.

Just what important function does the device perform that causes this betterment in the results attained? A quickened circulation and more heat units delivered per hour from less fuel than is required for any other type of hot water heating apparatus. A greater range of temperature, it being possible to heat the water to 240 or 250 degrees, equalling steam at 10 or 15 lb. pressure. Greater flexibility, it being possible to cool or heat the water quickly owing to the fact that the small pipe and fittings, and the reduced amount of radiation used, contains much less water than would be required in the open tank system. The radiation is reduced from 10 to 15 per cent,

according to circumstances, and the pipe, fittings, and valves used are less than half the size required for the old style open tank system. This fact in a measure accounts for the saving in first cost, over the older method, when the accelerated system is used.

No system of heating will be successful in operation—that is will produce efficient and economical results—except it be carefully planned and installed, and this is particularly true of an accelerated system of hot water heating. There are certain rules which govern the method of making pipe connections and the sizing of all pipes, which should be known and carefully followed, if the full measure of success is to be attained. To particularly call attention to these rules and their application we illustrate a small installation of thirteen radiators—a job carefully planned for accelerated circulation and one which has been in operation a sufficient length of time to show positive economy in fuel requirements. Figs. 1 and 2 show the first and second floors, and Fig. 3 a plan of the basement on which a complete plan of the piping and style of each connection is marked. These connections are lettered A, B and D. In the early days of accelerated hot water heating one manufacturer designated these connections on his working plans as A, B and D, and the steam fitting trade has since come to recognize and designate them in the same manner. Fig. 4 illustrates the manner of making each of these connections. That indicated as A is generally used in connecting a branch to a first floor radiator when there is no reduction in the size of the main at the point of making the connection. The method indicated by B is used for branches to first floor radiators, when the main is reduced in size where the branch is connected. It serves the purpose of relieving the air which would otherwise collect in the pocket formed by the reducing fitting thus making the full area of the main effective. It also affords the easiest possible

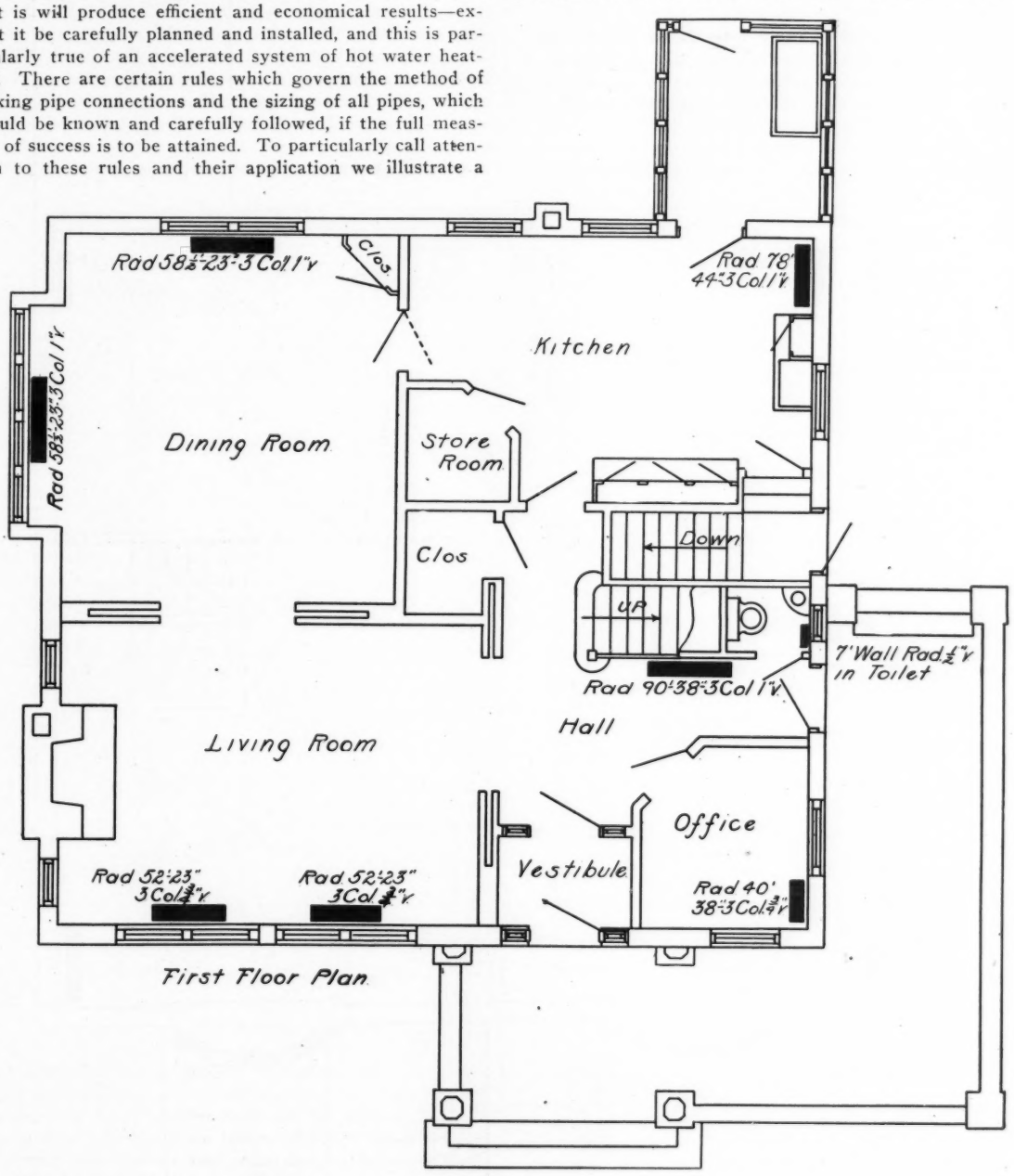



Fig. 1.

circulation when a division of the flow is required, and for this reason should never be used when connecting branches to risers leading to upper floors as there is always a tendency for the flow to seek the easiest outlet from the main and in consequence a connection of this kind made to risers would rob the circulation to the radiators on the lower floor.

When a branch is to supply a riser to an upper floor, the D connection should invariably be used as the trapping of the circulation caused by this form of connection retards the flow to the upper radiators, until the circulation is established to all of the first floor radiators. It is obvious that the main should never be reduced in size at an upper floor connection. It should be continued full

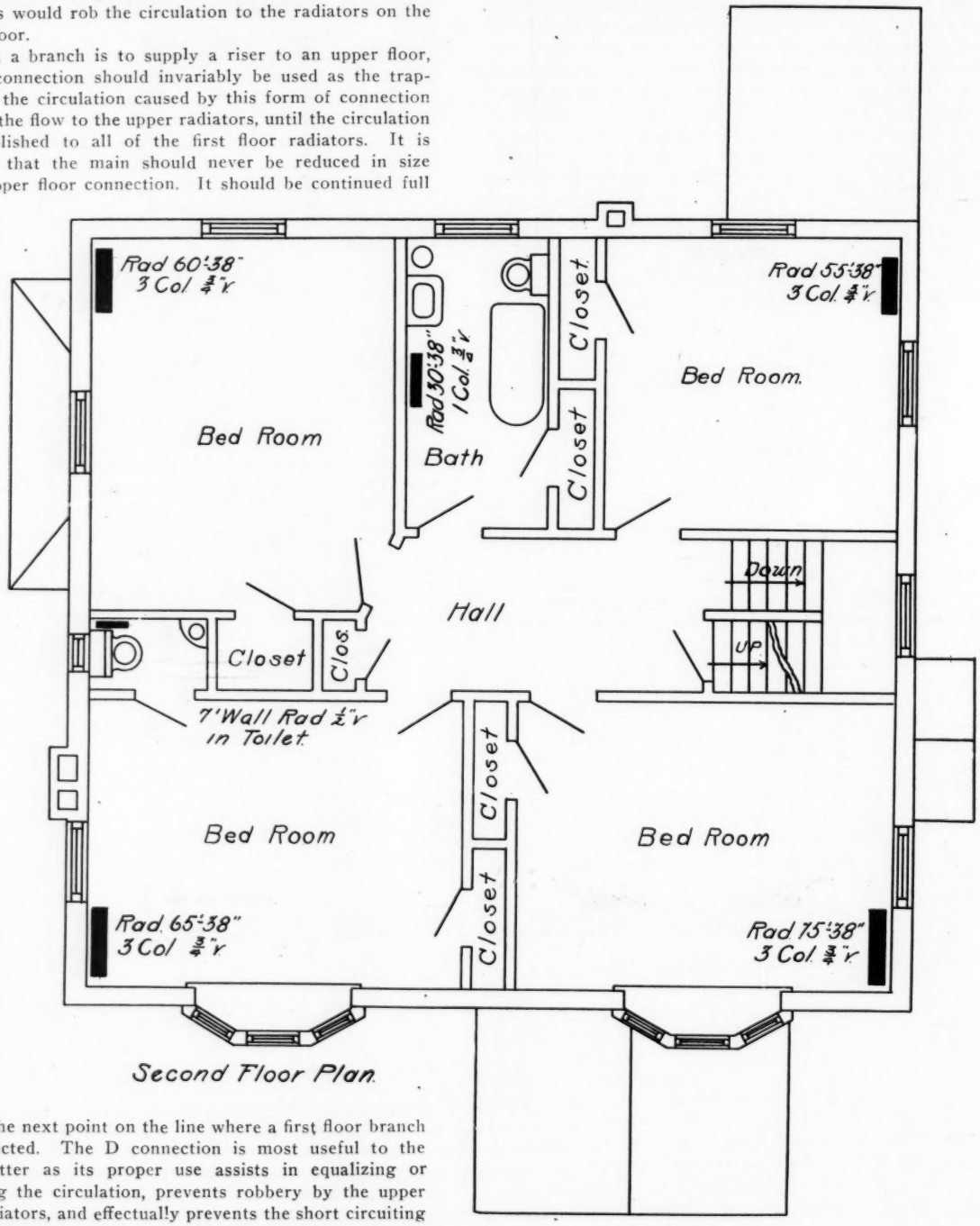



Fig. 2.

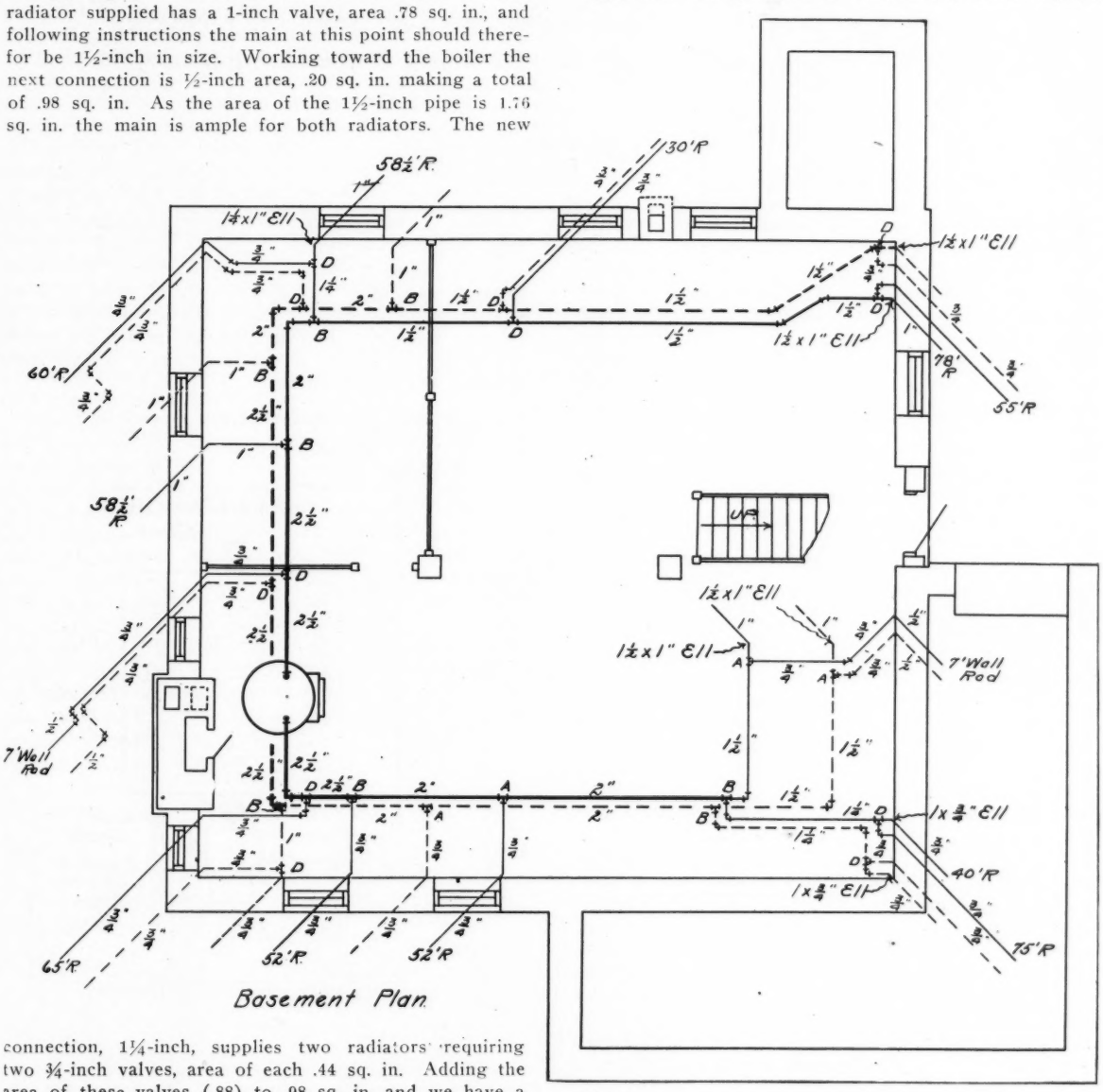
size to the next point on the line where a first floor branch is connected. The D connection is most useful to the steam fitter as its proper use assists in equalizing or balancing the circulation, prevents robbery by the upper floor radiators, and effectually prevents the short circuiting of the circulation at some point, which might prevent it from reaching the extreme ends of the mains.

There has been some complaint from the trade that the water cannot be entirely drained from the piping where the D connection is used. This is true, but it is an easy matter to tap the lower elbows and place small drain cocks on them, or a tee may be used in place of the 45-degree elbow, and a plug, inserted in the lower end of the tee, provides an easy method of draining the connection when it is required. Fig. 5 illustrates the method, and this style of connection allows the lateral branch to be run at a higher level than is possible with the regular form of D connection. This is of importance when head room in the basement is limited.

A main at the end should be two pipe sizes larger than the connection to the last radiator, and the main should

end at a connection to the lower floor radiator. The size of the main, for its entire length, is conditioned by the area of the valves supplied. To illustrate this let us consider the main which serves the front part of the residence illustrated. We shall for convenience use "circle" area rather than the actual area of the pipe, which differs somewhat from the area of a circle of indicated size.

Beginning at the extreme end of the main, the last radiator supplied has a 1-inch valve, area .78 sq. in., and following instructions the main at this point should therefor be 1½-inch in size. Working toward the boiler the next connection is ½-inch area, .20 sq. in. making a total of .98 sq. in. As the area of the 1½-inch pipe is 1.76 sq. in. the main is ample for both radiators. The new




Basement Plan

Fig. 3.

connection, 1¼-inch, supplies two radiators requiring two ¾-inch valves, area of each .44 sq. in. Adding the area of these valves (.88) to .98 sq. in. and we have a total of 1.86. As the area of the 1½-inch main is but 1.76 sq. in. a 2-inch main is required to supply the four radiators thus far considered. This fact also establishes the character of the connection at this point, which must be a B connection in order to relieve the main of air. Thus we continue toward the boiler adding in turn three ¾-inch connections, area .44 sq. in. each, which gives a total valve area for all radiators supplied of 3.18. As the area of a 2-inch pipe is only 3.14, the main must start 2½-inch from the boiler. Heating plans are not absolutely required although it is desirable to have them. Simply draw a straight line indicating the main. Draw branches at right angles to it and indicate the sizes of valves supplied, then beginning at the end of the main indicate the size of it and the character of each connection.

When once the advantages of added efficiency and fuel saving to be had, by installing accelerated systems, are fully known and appreciated by the steam fitter, he will use no other method of installing hot water heating apparatus. Be generous in determining boiler capacity for a job of accelerated heating as ample boiler capacity will increase the measure of economy and efficiency obtained from its use.

Many fitters have mistaken ideas regarding accelerated apparatus. One fitter told the writer that he always used the accelerated method of piping, but did not use an accelerator as he found that the work would circulate perfectly without it. Another fitter remarked that since he had been using an accelerator on every job he did not have to be as careful in erecting the piping as the accel-

(Continued on Page 150.)

# COLD DRINKING WATER DURING HOT WEATHER

*Pointers on How Plumbing Contractors Can Solve the Drinking Water Problem and Thereby Secure More Work in the Summer*

*By* Harold L. Alt

NOW that summer is here with all its seasonable heat the subject of drinking water is again an acute one. This does not necessarily mean *ice* water, which is unhealthy to drink, liable to be contaminated by the impurities of the melting ice and has been known to produce fatal results if used to excess at times when the body is over-heated. Neither is it required to contemplate refrigeration systems for cooling, which are altogether too expensive to install in a great many cases. The problem is, what is the cheapest satisfactory solution of the drinking water question, where the requirements are not sufficient to warrant the installation of a refrigeration system?

The earliest recollection on this subject which comes to the writer's mind is the old time water boy, who supplied cold drinking water to the laboring gangs, working along the railroads or on local municipal improvements. These boys used to receive about $1.50 to $2.00 per week and spent their nine or ten hours per day (as the case might be), walking from one end of the gang to the other, carrying an ordinary bucket some half full of water with a large chunk of ice and a tin dipper in it. The dipper was used as a common drinking cup by every man and was rinsed out by throwing it back in the water in the pail. Such conditions on construction work of similar character may yet prevail today, but for all cases where the location is permanently fixed other more desirable methods may readily be used.

It is necessary in order to judge intelligently of the various suggestions hereafter presented to know of what the most desirable features of a drinking water system consist. These may be classified as follows: First, purity; second, availability; and third, proper temperature.

To satisfy the first and most important condition it may readily be understood that any device or system, in which the ice melts directly into the water and the user drinks the ice drippings, is one in which the purity of the water is dependent on the purity of the ice, regardless of how pure the drinking water may have been *before* the addition of the ice. To insure pure ice is impossible, even when the ice is of the manufactured variety and is made from distilled water. In fact, one of the greatest difficulties experienced in artificial ice production is that of avoiding the formation of an objectionable discolored and bitter "core," in which all the impurities, ammonia, oil, etc., collect and concentrate.

This is owing to the fact that freezing itself is a purifying process *to a certain extent*, and the parts of the water in the can which freeze first drive the impurities back toward the center (which freezes last), concentrating them there and finally incorporating them in this concentrated form into the core which ultimately freezes solid with the ice cake.

As far as natural ice is concerned this is always dependent upon the purity of the body of water in which it is frozen and, (while freezing drives out some of the impurities) others, particularly disease germs, are neither driven out nor killed so that they cannot again become active, when the ice melts.

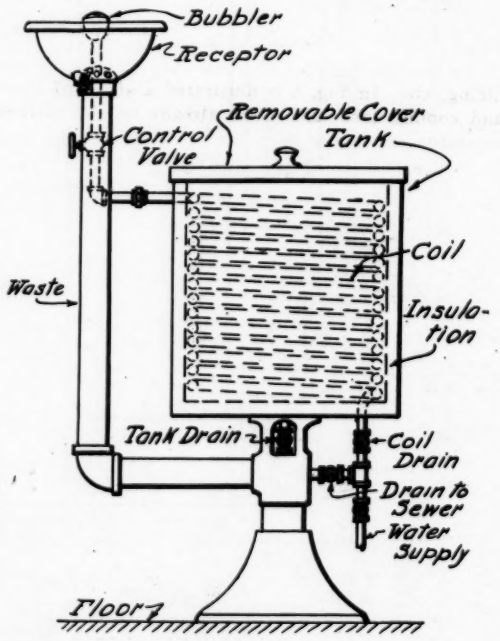



Fig. 1.

Both artificial and natural ice are subject to the accumulation of dirt in transit and therefore, even presupposing a pure ice is originally developed, no assurance can be given that its condition will be beyond question at the time when it is finally ready to be added to the water.

From the above the very important fact appears that a good drinking water system—as far as purity is concerned—is one where the *ice* does *not* melt directly into the drinking water. Similarly to prevent contamination of the water by other means it must be one in which the water is not retained in a tank that in time may become foul or unclean.

The second requirement makes it necessary that drink-

ing water be supplied at points convenient for use so as to avoid lost motion in going after a drink and to make the feature available to those who possibly would not have the time or opportunity to make long trips away from their duties.

The third feature consists of having the water as near to 50 degrees F. as possible, since this is generally recognized as the best temperature for drinking water, being cool enough to be refreshing and not so cold as to produce undesired physical effects when drunk in reasonable quantities. Here again lies another argument against any system where the ice lays directly in the water as the water temperature may fall to as low as 40 degrees or less in a well insulated tank.

Thus the best results may be said to be obtained in systems or devices employing a pipe coil, through which the drinking water flows, being cooled while passing through the coil by the coil itself, which is immersed in water in which the floating ice melts. Thus the condition of purity is maintained, since there is no connection between the ice drip outside of the coil and the drinking water inside of the coil. The second condition is covered by simply locating these outlets in convenient locations, and the third by the fact that the water passing through such a coil never reaches as low a temperature as the ice drip, yet if the coil is sufficiently large it will approach this low temperature sufficiently to approximate the desirable 50 degrees F.

There are several simple methods of employing the above features, the scheme selected depending somewhat on the service to be furnished, number of outlets, type of building, etc. In Fig. 1 is illustrated a standard fountain and cooling tank such as is already on the market, the apparatus consisting of a tank, which is cork insulated and contains the pipe coil, inside of which is a space approximately 12 inches in diameter for the ice.

The water enters at the bottom, flows in an upward direction through the coil coming out of the tank near the top and enters the 2-inch waste pipe which supports the bubbler and bowl receptor, the bubbler being controlled by a spring valve just below the bowl. The coil in the tank may be drained by closing the stop valve on the supply line and opening the coil drain valve which allows the coil to empty into the sewer, while the tank

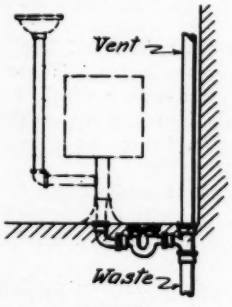



Fig. 2.

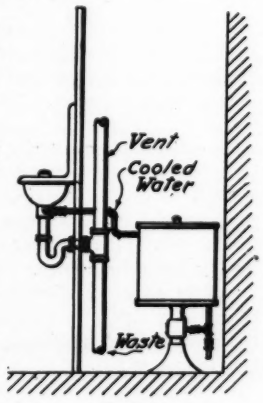



Fig. 3.

may be drained by opening the tank drain valve. The trap for this fountain is 2 inches in size and is located in the floor under the fixture, the piping connections being arranged somewhat as shown in Fig. 2.

Where it is desirable to make a nicer appearing job a drinking fountain may be mounted directly on a wall or partition and the cooling tank set out of sight back of the fountain. Such an arrangement is illustrated in Fig. 3, where the fountain receives its supply from the tank behind the partition.

A scheme similar to this was recently installed in one of the large department stores and has given every satisfaction. The scheme used there is shown in Fig. 4 and may be described as follows:

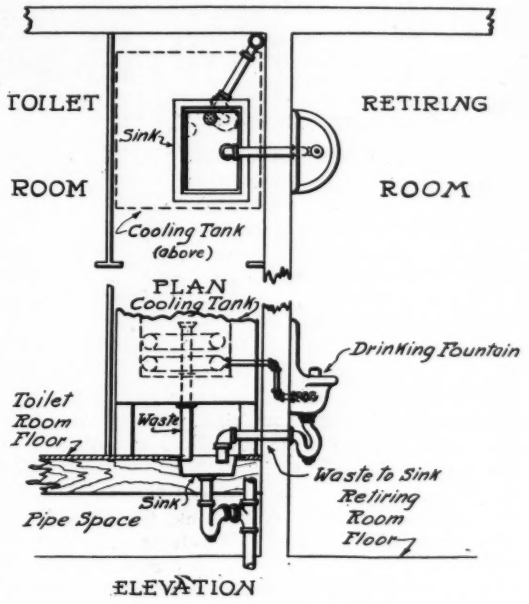



Fig. 4.

The toilet room floor (in order to furnish a pipe space for the accommodation of the soil, vent and water lines) was set 24 inches higher than the retiring room adjacent. The drinking fountains (two in number) were located in the retiring room on the toilet room wall as shown. In the toilet room the end closet compartment on each side was made into an ice tank room in which a small sink was flush with the floor, this making the rim of the sink just 24 inches above the floor level of the retiring room. The fountain waste was carried directly through the wall coming into the toilet room just above the floor and spilling into the sink.

Above the sink was placed the cooling tank, in which was located a length of 4-inch pipe coil long enough to have a capacity of storing 12 gallons of water. According to Table III given later, this length must have been 12/.661, or about 18 lineal feet. This 4-inch pipe coil is supplied by a 1-inch line from the cold water main and has the ½-inch connection to the fountain taken off of the lowest point. The box itself is built of three thicknesses of T. and G. lumber with paper between each thickness and is lined with galvanized iron. Being provided with a standing waste the water from the melting ice rises and covers the 4-inch coil before overflowing into the 1½-inch waste pipe, which spills into the same sink that receives the drinking fountain waste. The sink is provided with a 2-inch waste connection to sewer being trapped and vented in the usual manner.

(To be Continued.)

Give our boys in the Army and Navy every fighting chance. Pledge yourself to save to the utmost of your ability and to buy War Savings Stamps.

# QUESTIONS & ANSWERS

## SIZE OF SEPTIC TANK FOR EIGHT PERSONS.

Editor "Domestic Engineering":—How large must a septic tank be to accommodate eight persons? The plumbing system in this house consists of 2 closets, 1 bath, 1 sink, 1 lavatory, 1 laundry tray and 1 floor drain.

I would like to ask you to show me the proper way to connect pipes in and out of tank.

Erie, Pa. V. W.

A septic tank which contains a whole day's sewage is generally considered about right for domestic use. In this case we will assume 50 gallons of sewage per day per person. This is really more than may exist ordinarily, but it is possible to exceed that amount slightly at times. The capacity of the tank, therefore, should be $50 \times 8 = 400$ gallons, or approximately 55 cubic feet, say 50 cubic feet. Thirty inches wide is a good working width, and 5 feet long is a good working length, particularly if divided into two compartments by a partition in the middle.

In plan view the area of water line, therefore, would be 12½ square feet. Dividing total number of cubic feet capacity required by this area, or $50 \div 12.5 = 4$=depth of water in feet. This capacity allows a 24-hour retention for complete sedimentation, and should insure a very good quality effluent.

The capacity is greater than is really required. The retention is greater by far than is allowed in municipal sewage tanks. But it seems to be conceded that such a retention and such a capacity is very desirable for domestic work where the sewage volume is liable to be quite variable at times.

Furthermore, when we consider that domestic plants are frequently very much neglected at times, sludge accumulates to a considerable extent. This frequently reduces the actual water capacity very materially.

A domestic tank, designed on a 24-hour retention, has abundance of capacity to take care of the sludge for a very extended period,—perhaps two years or more.

Along that line of reasoning, we therefore design the tank shown in Fig. 1, believing that it will meet correspondent's requirements in the line of a concrete tank.

Each compartment is 30 inches square inside. The depth of water is 48 inches. The walls are, say, 8 inches thick, and floor about 6 inches. The partition may be 4 to 6 inches thick, preferably the latter, if not reinforced. There are two 6 or 8-inch openings through partition, about half way down in the water. These are placed near the side walls, as shown in plan view.

The inlet and outlet pipes enter at center of end walls. Each enters with a tee which is open on top for ventilation of tank up through house pipes.

The tank is shown covered with a strong wood cover which can be lifted off.

Perhaps the location may call for something better, such as a concrete top with 21-inch cast-iron manhole and cover over each compartment.

It is intended that the sludge be pumped out by hand and buried in the garden, say, each fall..

An examination of the plan view shows how the sewage has to travel full length and width of tank. It cannot short cut from inlet to outlet, leaving stagnant corners or side pockets. Most of the sludge will, of course, accumulate in the first compartment. Perhaps 70 per cent of it or more will accumulate here. The second compartment will settle most of the remainder. The septic action may be quite active in first compartment at times, due to the solids going through their first stages of de-

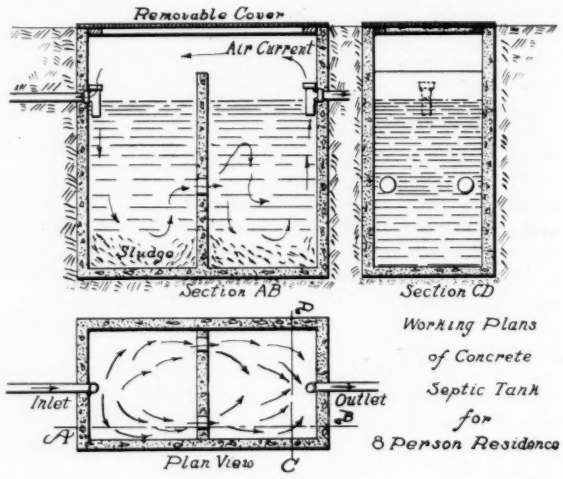



Fig. 2.

composition. But in second chamber the septic action should be less active. This is where final treatment is obtained.

Correspondent must not imagine that the liquid flowing from this, or any other domestic septic tank, is good enough to drink. In fact, he must not even consider it pure enough to discharge directly into a stream which furnishes drinking water to human beings or animals further down its course.

But he may consider it pure enough to discharge into streams or rivers that have a very large flow of water all the year around, providing there is no state or municipal law to prevent it.

In the event of the effluent requiring further purification, he will have to consider which system of purification is best adapted to the case in hand.

He may require to run the effluent through a filter, above or below ground. He may even have to use a sewage siphon in connection with the work.

Indeed many cases are on record where the sewage even after it is filtered, has to be treated chemically and sterilized by some well-known reliable germicidal gas or liquid. Chlorine gas is the favorite for this at present.

The writer quite recently completed the design and erec-

tion of a sewage treatment plant for a contagious disease hospital, in which the sewage first was passed through a septic tank, thence through an intermittent automatic sewage siphon and sprinklers, thence on and through a bed of broken stones seven feet deep, thence through a chlorine injection chamber, thence through retention dam and thence down a mountain side near a city.

Children frequently play in the little pools of sewage water from that hospital. Dogs drink the water at times. But it is sterile—always sterile—and so it does not hurt them. This remark is only made to let correspondent see that there is no "one way" to the sewage disposal question. Each case should receive separate individual study and be designed and constructed with reference to its own particular conditions and requirements.

## WHEN INSURANCE COMPANIES PAY IDEMNITY FOR DISABILITY.

(Copyright by Ralph H. Butz.)

A large number of business men, who think they are protected against the loss of their income due to sickness or accident because they carry health and accident insurance, are not familiar with some of the most important clauses that are a part of their insurance policies. These clauses are very important, because they specify the conditions and circumstances under which the insured is entitled to claim indemnity.

The agent who solicits the insurance may make all kinds of glowing statements concerning the liberal clauses embodied in the policy of the company he represents, and in many instances the business man, who purchases insurance, relies upon the agent's statements. But, no matter what the agent claims, it is the duty of the insured to read his policy and determine for himself whether it is the kind of protection he needs. If he does not acquaint himself with the terms of his policy, he may find, in case of sickness or accident, that the terms of his policy are not as liberal as he was led to believe, and that, as a result of his negligence, he is not entitled to claim indemnity. Many men find out too late that their accident insurance is not the kind of an asset they supposed it to be.

In many cases where the insured claims indemnity on account of being disabled through sickness, the insurance companies are very cautious in conceding such disability to be an actual fact, and in some instances do not pay the indemnity, unless ordered to do so by the higher courts. The insurance company's defense is usually to the effect that the insured was not wholly incapacitated within the meaning of the clause in the policy.

Every man, who carries insurance against sickness and accident, should read carefully the clause or clauses pertaining to the company's liability in case the insured is totally disabled, but not necessarily confined in the house. A common form of such a clause, and one which may be considered as being favorable to the insured, is the following:

"If immediately following such a period of total disability and confinement in the house, he shall be totally disabled and wholly and continously prevented from performing any and every kind of business pertaining to his occupation, but is not necessarily confined to the house, three-fourths of said amount for the week will be paid to the assured."

Where this clause is brought into evidence by the insurance company its defense usually hinges upon the words, "any and every kind of business." A case in which an insurance company used this clause as its defense was recently decided in one of the higher courts. In this case the insured was a traveling salesman. His duties were of such a nature that he had to travel the greater part of the time. However, at long intervals he was at his employer's office for several weeks at a time, and while there did some office work.

From January to October he could not do any traveling on account of a severe ailment that affected his feet. However, while he was thus afflicted he went to his employer's office every few days, always in an automobile, because he was unable to walk more than a few steps at a time. While at the office he occasionally dictated a letter, and during the entire period of his disability, it was shown he had dictated about eighty letters.

The insurance company refused to pay indemnity, claiming that because he was able to go to the office and do some work there, he was not totally disabled from following his occupation. The court, however, upheld the salesman's claim for indemnity, saying:

"If the prosecution of the business required him to do several acts and perform several kinds of labor, and he was able to do and perform only one, he was as effectually disabled from performing his business, as if he could do nothing required to be done.

"If a man is so incapacitated from following his usual business, occupation, or pursuits as to be unable to do so, he is wholly disabled from following them. His usual business and occupation embrace the whole scope and compass of his mode of getting his livelihood.

"In construing a policy we should adopt the meaning of the words used most advantageously to the assured, and in the present case the indemnity runs during such a period as the insured is disabled to perform any and every kind of his occupation. The proofs show sufficiently to so infer that the principal part of the occupation of the insured was traveling, in which the use of the feet was absolutely necessary, and because of his peculiar illness he was disabled from performing the principal and major part of his occupation."

Thus, it will be seen that it is to the advantage of the insured to have the words "any and every kind of business pertaining to his occupation," appear in the total disability clause. The court holds that the reasonable construction to be put upon this phrase is, not that he must be so disabled as to prevent him from doing anything whatever pertaining to his occupation, but that if he is so disabled as to prevent him from doing any and every kind of business pertaining to that occupation, he is entitled to claim indemnity.

If the clause in the policy should read, "any kind of business pertaining to his occupation," it would be advisable for him to change his policy for one that offers a more substantial form of protection.

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The total of the building operations in San Francisco for the first six months of 1918 amounted to $5,647, 872, including not only the private building contracts but the public work as well, but not including the large amount of building for which no formal contracts were made and recorded with the building department. Building for the first half of 1918, as compared with that for the first half of 1917 shows a decrease of approximately fifty per cent, as was to be expected as a result of the war. The impossibility of securing steel for any building not classed as essential for the winning of the war, the scarcity of all materials entering into construction and the scarcity of labor have had their natural effect.

# LEGAL QUESTIONNAIRE

## *Can a Husband Compel Reconveyance of Real Estate to Himself by Wife in Absence of Written Agreement of Trust?**

*By* "The Judge"

**Husband Cannot Compel Reconveyance of Real Estate to Himself by Wife in Absence of Written Agreement of Trust.**

Editor "Domestic Engineering":—Several years ago, as a business precaution, I conveyed a piece of real estate to my wife, through a third party. I had no actual creditors to protect myself against at the time, but was afraid that I might have. My wife and I had no written agreement that she would reconvey to me and no definite oral agreement, but it was understood between us that I was not giving her the property. The need of this protection against creditors, as it later developed, did not exist.

Three or four years ago, wishing to sell the real estate, I placed it in the hands of a real estate agent. The first time the agent took a party to see the property, my wife refused to let him in. Later, after my instructions that I really owned the house, the agent went there and the prospective purchaser bought the house. The purchase money was paid to me, in my wife's presence, at the registry of deeds, and we went to two different banks and deposited the money in her name. I have since received all the interest in my wife's presence, and deposited it in my own name in another bank.

Recently, wishing to buy another house, I asked my wife to take the money out of the bank, and she has refused to do so, claiming that it belongs to her. Can I take some action to secure this money from her? It amounts to several thousand dollars.

Mass. J. N.

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Answer:—As is usually the case, when you deal with members of your family and those in whom you place trust and confidence, you failed to take the necessary precautions to protect your interest, and your chances of getting back your money are not very good, particularly in the courts of your own state, which are very strict in such matters.

If the real estate had not been sold and the money obtained, I should say that there was almost no chance of your forcing your wife to repay you, unless you have evidence which would be admissible, to prove the existence of a trust in your favor. One of the difficulties in your case is the statute, which provides that conversations between husband and wife, not in the presence of any other party, are not admissible in evidence. That is, you cannot tell what was said by you or your wife, when you were talking alone.

There are statutes in most states, as there is in yours, which provide that no trust concerning land can be enforced unless there is an agreement or memorandum in writing. In one case decided in your state under this statute, a husband had made a conveyance to his wife, much as you did and then repented and tried to get the property back. The court said, in deciding that the husband had no legal right to a reconveyance:

"As the findings that the transfer was voluntarily made and was not induced by fraud or imposition stand, the court had to deal with the ordinary voluntary transfer by a husband to his wife, tainted with no fraud and imposition upon him, and where no declaration of trust or other written instrument appeared to control the written deeds, which placed the absolute title in the wife.

"Such a voluntary conveyance as the present, without consideration, even with an oral agreement that a wife shall hold the land in trust, cannot create a trust which can be enforced.

"As there was here a voluntary conveyance * * * it it immaterial what may have induced the plaintiff to make or the defendant to receive the transfer. Although the husband made it to preserve and protect his home, and she accepted it to assist him, and joined in carrying his desire into execution, and holds the land as the home for herself and her family, her rights are defined by her deed, and he is entitled to no relief."

As regards the question whether there was a fraud on creditors when you conveyed to your wife and the possibility that this might be set up as a defence by your wife, if you sue her, it has been held in your state that" Neither party can change the effect of the conveyance as between themselves, by appealing to the purpose of either in reference to creditors. A conveyance fraudulent as to creditors is good as between the parties. Neither party, as against the other, can set up a fraud of this kind." Apparently, under this decision, the fact that you were endeavoring to protect yourself, against your possible creditors, would make no difference to your rights against your wife. In another case involving this principal, the court said that a fraudulent intent to defraud subsequent creditors was not warranted by inference from proof simply that the conveyance was made with a design to settle the property upon the grantor's wife, so that it would not be exposed to the hazards of his future business, or liable for any future debts which he might contract.

It seems to me that the one bright spot in your case, and it is not a very bright one because of the probable facts, is that you might claim that the trust, under which you really conveyed the land to your wife, had been executed and that therefore you were entitled to relief.

*Every Effort is made to the End that these Answers may be authoritative. However, we cannot assume any Responsibility because of the very Nature of the Service, which is rendered without a personal Interview.—Editor.

That is, even though you had no right to compel your wife to convey the real estate back to you, if she did in fact sell the land and the money was paid to you, that would be carrying out the trust, which existed between you, and you would be entitled to the money.

So far so good. But you say that you went and deposited the money in your wife's name in the bank. If you had not received the interest and had not deposited the interest in another bank in your own name, you would be up against another proposition of law that you had again given the money to your wife, a second time. The law is, in your state, and some others, that a husband cannot give his wife several thousand dollars directly, without its going through the hands of a third party. If you had given the money to your wife and she had then deposited it in the bank, you could possibly claim it as your own, because no valid gift had been made by you. If, however, you deposit it yourself in your wife's name, there has been such an intervention by a third party, in this case the bank, that the court would say that you had made a valid gift to your wife. In effect such a transaction would be a contract between you and the bank to hold the money for your wife.

The fact that you received interest on the account, in the presence of your wife, and deposited the money so received in your own name, would be good evidence of the existence of a trust, as you claim, and that you did not give the money to your wife when you placed it in the bank in her name.

In support of your contention that a trust existed and that it was carried out by your wife, and that therefore you are entitled to the money, we have a case in your state where a man conveyed land to his aunt upon her oral agreement that if she sold the land the money was to be held in trust for certain purposes. The court upheld the trust, which was oral as in your case, saying that while no trust arose as to the land under the oral agreement, there was another oral trust which involved personal property in the form of money which could be enforced. The agreement as to the proceeds of the sale of real estate was separate and distinct from the trust relating to the real estate and did not require an agreement in writing. This action was to enforce a trust in personal property, which the defendant had in her possession and where nothing remained to be done except the payment by the defendant of the money which she held. Continuing the court said:

"The rule, governing cases of this kind, is as follows: The true doctrine is that, if any part of an agreement is valid, it will avail as a whole, though another part of it may be prohibited by statute, provided that the statute does not either expressly or by necessary implication, render the whole void; and provided furthermore, that the sound part can be separated from the unsound and be enforced without injustice to the defendant.

"If some of the stipulations in a contract are within the statute (or frauds) and some are not, and those which are within it had been performed, and action lies upon the other stipulations if they are separate.

"Accordingly, where land has been conveyed on a parole trust to hold the proceeds for a certain purpose, if that event has taken place and the land is converted into money, the statute of frauds is not a defence. The trust will be enforced although there was no declaration of trust subsequent to the conversion of the real estate into money."

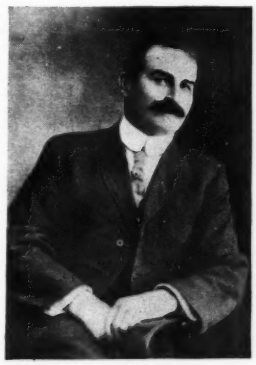
From this decision you will see that there may be a chance for you to make a good fight. Of course, you may have difficulty in proving the execution of the trust as a fact under the circumstances, but that seems to me to be your best chance.

The facts against you are that you deeded your property to your wife without a written agreement as to its return to you when you asked for it and that you deposited the money in the bank yourself, in your wife's name. The facts in your favor are that your wife, against her own wishes apparently, participated in a sale of the land to a customer whom you had found and thus carried out the actual trust; that the money received from this sale was paid to you; and that after you had deposited the money in your wife's name, the interest was paid to you and you used the money as if it were your own.

You have got a fighting chance to recover the money, but you are handicapped in the first place by the law and in the second place because, your fight being between husband and wife, it is difficult to prove all that was said, under the laws of evidence as to conversations between husband and wife. However, as you say that several thousand dollars are involved, I should advise you to make a try for the money. It might result in a compromise, at least.

I want to add that I have discussed this case from the standpoint of the law of your state. Other states have similar and some have different laws regarding transfers of real estate under an oral trust, and in a case in any other state than your own would have to stand or fall on its own particular law, as applied in the state where it arises.

## WHERE IS HE?



P. W. Gorman.

P. W. Gorman, whose likeness is shown herewith, has been missing since the latter part of 1916. He had many friends and acquaintances in the plumbing trade, having for years conducted a plumbing business at Salt Lake City and later been connected with the Peerless Self-Closing Faucet Co., also of Salt Lake City, Utah. He was in New York City when last heard from. His family is worried over his absence, and it is hoped that anyone who knows his present whereabouts or who has known his whereabouts at any time during the last twenty months, will send such information to "Domestic Engineering" without delay. Any information, that may seem likely to be of service in locating him, will be greatly appreciated.

Architects Sturgis & Parker, of Boston, have completed plans for 800 dwelling houses soon to be erected in Bridgeport as part of the Government housing system. Single, double and three-apartment houses will be erected, each apartment with private bath and other modern sanitary conveniences.

Robert F. Dutton, who has conducted a plumbing and heating establishment at Woodstock, Vt., for some time past, is disposing of his stock and fixtures and will retire from the business soon. He expects to take up some line of government work but has not definitely determined his future location.

# MODERN PLUMBING *and* HEATING BIG FACTORS *in* GOVERNMENT HOUSING PROGRAM

*Government Housing Provisions for Protecting Health and Insuring Comfort for War Workers Recognizes Importance of Up-to-Date Plumbing and Heating Systems*

ONE of the interesting by-products of the war has been the inauguration in this country of the policy of erecting workingmens' dwellings by the Government. Hundreds of millions of dollars have been appropriated to this end and thousands of dwellings for war workers have been and are being built in many sections of the country.

Commenting on the urgent necessity for adequate housing accommodations for the great host of war workers, Lawrence Veiller, secretary of the National Housing Commission, said recently:

"As early as spring, last year, farsighted men began to realize the situation. They pointed out then that unless steps were taken to properly house the workers in shipyards and munition plants, the production of ships and war supplies would be greatly retarded Various official bodies took the matter up, commissions were appointed, testimony was taken at Washington and a vast fund of information was accumulated, showing the absolute necessity of action along these lines. Then came delays—conferences and hesitation upon the part of Government officials in embarking on this new policy. Finally, but not until February, came the introduction in Congress of legislative action, appropriating in two different bills, $100,000,000 to be expended for the purpose of housing the workingmen in the shipyards and other war industries."

**Plumbing Supplies Ready for Installation in Buildings for Workers in War Industries at Erie, Pa.**

Modern plumbing and heating appliances are big factors in the housing requirements of the Government. Adequate provisions have thus been made for the health and comfort of the tenants of these dwellings which are being constructed along substantial lines.

In the accompanying illustrations, showing workingmens' houses under construction, the large array of bath tubs and the shipments of piping, indicate that the services of the plumber and fitter are of vital importance.

The dwellings shown in the photographs are under construction for the Government at Erie, Pa., and will house employes of the American Brake Shoe & Foundry Co.

The Gannon & Carey Plumbing & Heating Co., of Erie, Pa., installed the plumbing and heating systems in these dwellings. One hundred and eighty-three bath tubs were installed and about 100,000 feet of wall radiation. Two hundred valve closets and six 200 horsepower water tube boilers were among the other equipment in the completion of the plumbing and heating contracts. The company has been congratulated by Government officials and its friends in the trade on the satisfactory manner in which the work was handled.

While there may be some slight variance in methods of plumbing installations and in types of goods, the best practice in sanitary requirement is followed in Government housing. In the Government Standards of Types of Houses for Permanent Construction, we learn that one departure from the usual plumbing practice, and one which appeals to architects as an economy and as a practical measure, is the permission to use 3-inch soil stacks where not more than two closets are placed on one stack.

Antiquated types of fixtures are naturally barred. Plunger, pan, long-hopper and range closets are absolutely prohibited. The water closets are required to be of porcelain and washdown, syphon or syphon-jet type, and in all cases with an individual flush tank. The new open front seat so important in the prevention of venereal diseases is recommended.

Outdoor water closets are positively prohibited, as are privies; cellar water closets are to be permitted only where they are supplementary to the accommodations required under the standards and even then must be constructed under conditions which will not give rise to abuse.

One very important requirement is that access shall be had to all water closet compartments either from a hall or vestibule and never solely from a room. This is essential for privacy. Wooden sinks and wooden wash trays are barred out. Hot and cold water supply is to be provided for all fixtures. Exposed pipes are preferred,

**Apartment Houses Under Construction for Workers in War Industries at Erie, Pa.**

though not always required, and when exposed the preference is expressed for the use of piping, special emphasis is laid upon the desirability of concentrating pipes wherever possible and especially in northern climates, in keeping them away from outside walls so as to avoid freezing.

Every bath room is to have at least one window opening directly to the outer air. Two windows in each room is generally preferred, while one window is considered sufficient in small bed rooms.

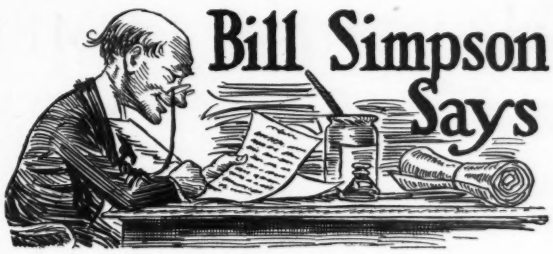
Every water closet compartment is to have a window of not less than 4½ square feet in area opening directly to the outer air. A skylight in the roof, with an equal amount of glass area and provided with adequate ventilators will be accepted in lieu of windows.

### Ball's View on Good Housing.

In speaking of standards for good housing of war workers, Charles B. Ball, chief of the Bureau of Sanitation, Chicago, said at the Building Officials Conference:

"It is a noteworthy circumstance that notwithstanding the tremendous war activities of the nation during the year, much consideration has been given to the question of housing standards. Attention to this subject has been due to a number of causes. As soon as the war began, the placing of contracts in the United States for war munitions to be furnished to England and France, and the assembling in industrial centers of workmen to engage in the production of these war necessities, demonstrated the fact that many towns and cities were experiencing a lack of housing, even to the extent in some instances of a genuine housing famine, which was accentuated by the coming of additional workers."

In discussing the part which modern plumbing is playing in the construction of houses for war workers, Mr. Ball pointed out that the Government is fully cognizant of the health-conserving advantage of superior sanitary goods and efficient installation of the same. He said that the workers and their families are being amply provided with sanitary household facilities.




(With Apologies to K. C. B.)

There was a time,
* * *
A few years ago,
* * *
When the "boss"
* * *
Prided himself upon the fact
* * *
That he hadn't taken a
* * *
Vacation for twenty years
* * *
But times have changed,
* * *
And today the man, who
* * *
Doesn't take a vacation
* * *
Now and then,
* * *
Is looked upon as being an old fogy and a
* * *
Back number. And he is.
* * *
Everyone needs a change
* * *
Of surroundings and a rest.
* * *
Why, even a machine will
* * *
Not run forever without
* * *
Time out for repairs.
* * *
Today, more than ever before,
* * *
When the war demands so much
* * *
From all of us,
* * *
We should take time to recreate
* * *
Ourselves and be able
* * *
To come back to our work
* * *
Ready to put on the harness
* * *
And pull harder and faster
* * *
Than ever before.
* * *
Take the wife and family
* * *
And your fishing outfit
* * *
And go out camping beside some
* * *
Lake or quiet stream.
* * *
After a few days of such life,
* * *
Your cares and worries will
* * *
Evaporate and go up in thin air,
* * *
And you'll come back feeling
* * *
Like a new man. Try it!

# PATRIOTISM in the PLUMBING and HEATING TRADES

## THE YANKS ARE SMASHING THE HUNS.

PLUMBING and heating contractors, and manufacturers and jobbers, in the trade, are rejoicing with the general public in the splendid success of the American armies in France. Very effectively have the Yanks answered the senseless slurs of the Berlin newspapers that "American soldiers were only cannon fodder and tin warriors." The Kaiser —that foolish and misguided individual—and his strutting offspring, Willie, are no doubt horrified to contemplate the American victory as well as the general Allied advance. Their present horrification is only a drop in the bucket to the coming series of victories which Uncle Sam and the Allies will "put over" before the Prussian gang cries, "Quit!!!" The Kaiser in his charcteristic ravings said, according to Ambassador Gerard, "I'll stand no nonsense from the United States." What a childish remark from a monarch who is supposed to have more than ordinary intelligence! It is surprising to the world at large, that the German people have tolerated this vain individual for so many years and have permitted him to run around loose, making extravagant remarks chiefly about himself. The Kaiser will not have to stand any nonsense from the United States, but he will have to stand a powerful dose of common-sense. America and the world have grown very tired of the unmitigated Hohenzollern nuisance—this "Me und Gott" nonsense. America and the Allies are not going to let the world put up with a continuation of this nonsense.

### In Uncle Sam's Service.

Frank J. Shannon is upholding the honor of the Master Plumber's Association of Boston and Vicinity in the army. Last July he gave up his plumbing business at 134 State Street, Boston, enlisted in the Quartermaster's Corps, and was detailed to the office of the Constructing Quartermaster at Camp Devens, Mass., with the rank of sergeant. Recently he attended an officers' training school at the camp and was recommended for a commission and soon it will be "Lieutenant Shannon". The Boston Master Plumbers' Association is justly proud of him.

Sgt. F. J. Shannon.

Sergeant Shannon is a grandson of Daniel Shannon, former secretary of the National Association of Master Plumbers and who has held the offices of President and Treasurer of the Massachusetts state association at different times during his 35 years of activity in the trade.

When the cantonment at Ayer was completed and the drafted men began to arrive last fall, Sergeant Shannon was placed in charge of the maintenance department at the base hospital and during the winter had general supervision over the heating system, which, with its three miles of pipes supplying 68 buildings was never out of order due to the efficiency of Sergeant Shannon and the men under him. At present he is assigned to the office of the Camp Quartermaster, which furnishes equipment of all kinds, food, transportation and everything to maintain the division. Sergeant Shannon is looking forward to the time when he will be sent overseas. "It surely will please me to land in France," he writes.

William J. Hartman, a plumbing contractor of 144 Meadow Street, New Haven, Conn., is now in the service of his country at Camp Jackson, S, C. As the picture indicates, Private Hartman is the type of man, who harbors no fear of the Hun, and when the time comes he will be able to clash with the best that the Hunnish emperor can put in the field. Hartman has long had a profound contempt for the individual, who rejoices in the name of "Hohenzollern"—that royal madman who would like to spread himself all over the universe, if he thought he had a chance. Like other loyal Americans, Hartman has decided that it is high time to put a final end to this crazy "Me und Gott" business.

W. J. Hartman.

O. J. Cosgrove, son of Philip P. Cosgrove, secretary and treasurer of the Thomas J. Dyer Co., of Cincinnati, O., has entered the service of Uncle Sam's aviation branch at Dayton.

Walter F. Thorpe, a master plumber of Westerly, R. I., is now attached to a division of Rhode Island Infantry which is now smashing forward against the Huns. In his absence, his wife is managing the plumbing business and in a creditable manner. Mrs. Thorpe is rightly proud of her husband, and she is expecting that he will return home with an army commission.

W. F. Thorpe.

John and Edward Enright, brothers of P. J. Enright of the plumbing and heating company which bears his name at Chicopee Falls, Mass., are both in the service of Uncle Sam. John is in the navy and is stationed at Hingham, Mass., while Edward is at Camp Devens. He expects to leave soon for France. He is exceedingly ambitious to assist in starting the Huns on the run for the fatherland, and to quote the words of an American commander in the recent big American vic-

tory, John believes the Hun will continue to "run like H—, when the Yanks get mad." He is very anxious to be among the pursuers, when the big run starts.

H. W. Merkel, of the Merkel Bros. Co., Cincinnati, O., is now serving his country as a captain of the ordnance department in New York.

Sergeant H. E. Riegger is a "Good" soldier. He left the desk of Assistant General Manager of the Good Manufacturing Co., at New York City, in order to help Uncle Sam to clean-up the misguided Huns. He is now "Over There" and is getting a smell of gunpowder. He is attached to the ordnance department and is seeing to it that the boys get good ammunition with which to smash the Boches.

Sgt. H. E. Riegger.

George D. Cannon, oldest son of C. M. Cannon, plumbing contractor of Middletown, Conn., is now a first lieutenant of the headquarters Company, stationed at Camp Gordon, Atlanta, Ga. He saw active service in France and was camped at one time in a dugout which was forty feet under the ground. He sailed for "Over There" last September and on April 6th he was ordered home as an instructor at Camp Gordon. He is exceedingly anxious to return to France at this time, so that he might participate in the big offensive against the Boches—the offensive that is likely to press the Hunnish hordes back to the banks of the Rhine.

Henry E. Ehrensing, Jr., some time ago turned over his plumbing business in New Orleans, La., to his brother, Edwin L. Ehrensing, and entered the Navy. He is now in France installing sanitary plumbing in our army camps to safeguard the health of the Sammies.

Corporal Kiser Stephenson, a son of Thomas R. Stephenson, treasurer of the Atlanta Association of Master Plumbers, is a chip of the old block, like those big Dixie laddies, who are now smashing the Hun hordes left and right. He is very anxious to get "over there" and join the rest of the Dixie boys who are sweeping the Boches before them. He is now encamped at Camp Gordon. In civil life he was secretary-treasurer of the Stephenson Co., plumbing and heating contractors of Atlanta. Owing to the fact that his given name is Kiser, his comrades in arms have christened him "Kaiser Bill." He endures his nickname patiently and declares that he would love to meet in a dark lane or broad daylight the peculiar European gent who rejoices in that notorious title.

K. Stephenson.

Louis A. Eberley, junior member of the plumbing firm of J. C. & L. A. Eberley, of Whitesboro, N. Y., recently enlisted in the Navy and is now in training at Pelham Bay. He is anxious to do his share in crushing autocracy.

Henry Niemes, plumbing and heating contractor of Cincinnati, is now displaying a service flag with nine stars. Henry J. Niemes who is a second lieutenant in France is among the number. Clarence Bauer, a first lieutenant, is also represented. The other stars represent employes, who are in the navy and aviation divisions.

Emile Klein has sold his plumbing and hardware business at San Jose, Cal., in order to enter the United States Army. This business was founded by Mr. Klein's father more than 60 years ago.

## Convention Dates

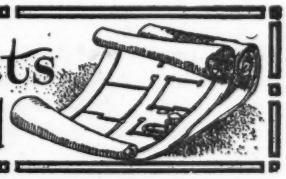
September 18 and 19, 1918.—The fall meeting of the National Association of Brass Manufacturers, in Cleveland, Ohio.

October 14 and 15, 1918.—The annual meeting of the American Society of Sanitary Engineering, at Chicago, with headquarters at the Congress Hotel.

October 14 to 17, 1918.—The annual convention of the American Public Health Association, at Chicago.

October 16, 1918.—The fall meeting of the Central Supply Association, in Chicago.

## Contracts Awarded



Eau Claire, Wis.—P. L. McQuillan & Co. will remodel the heating system in the Court House Annex.

Olean, N. Y.—Hickey Bros. have secured the contract for the installation of modern plumbing in Olean's new armory.

Houghton, Mich.—Fred J. Stoyle has secured the contract for the installation of modern plumbing in the new South Range School.

Jamestown, N. D.—H. P. Taylor has secured the contract for the installation of modern plumbing in the Medina high school. The contract amounts to $1,843.

Kearney, Neb.—The Kearney Plumbing & Heating Co. has secured the contract for the installation of modern plumbing in the new Farmers State Bank Building.

Grand Rapids, Mich.—Weatherly Co. has been awarded the contract for the installation of a modern plumbing system in the Oltman Building at Fulton Street and Jefferson Avenue.

Bristol, Okla.—A. L. Colaw, of this city, has secured the contract for the installation of modern plumbing in a new school building in this city. H. C. Fitzman, of Oklahoma City, secured the contract for the installation of the heating system.

Columbus, O.—The Huffman-Wolfe Heating & Plumbing Co., of this city, has been awarded the contract for the installation of plumbing and heating systems in all the dwellings in the new coal town, Wheelwright, Ky. The contract amounts to more than $30,000.

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Hastings, Minn.—W. A. O'Connor has opened a plumbing establishment in this city.

Muskogee, Okla.—O. E. Drake & Co. have opened a plumbing and heating business in modern quarters at 230 Lombard Street.

# *The* DAY BOOK *of the* BON TON DE LUX PLUMBING & HEATING CO.

*Jerry Dolan's Record of the Interesting Happenings of the Day*

(Continued from Page 89 in the July 20th Issue.)

**July 19, 1918.**

Just think of it. We needed a ¾-inch galvanized street ell the other day on a job that was closer to the supply house than the shop, and so I dropped in and got one, and this morning the bill arrived. Twenty cents for that one fitting. It looked way out of sight, but on the piece list the price is right, altho it would only cost a little over twelve cents, if we had bought it on the pound list. In a way, it's all right too. Buying fittings by the piece is retail stuff; buying by the pound is wholesale and plumbers ought to carry that idea into their businesses. If we buy fittings wholesale and sell them retail, our resale price should be based on the piece cost, and the difference is the profit that we are entitled to for carrying a stock of fittings ready for use.

**July 20, 1918.**

Had a little thing bob up today that was pretty good. Years ago Flannagan made a sewer connection from the main in the street to the curb line for a customer, and at that time offered to extend the pipe on in and connect to the pipe at the cesspool for Fifteen Dollars, but he didn't want it done then. The other day he came in and told us to go ahead and make the connection and we told him that we would do it. Well, we gave the order to the Sanitor Company and they sent out a couple of men and the necessary lumber and materials, and when they got through they sent us their bill and we added our profit and sent it to the customer. The total was a little over $45. This morning he came in and paid the bill and said that everything had been done in A1 shape, and he was very much satisfied with the way the men had worked and the manner in which they had relaid the sod, which they had to take up. Think of it, a boost from $15 to $45 in two years, and the customer happy at that, but I'll bet that, if the the sod had not been replaced right or if those fellows had loafed on the job, there would have been a different story to tell.

**July 21, 1918.**

Signed a pledge for War Savings Stamps the other day. The salesman had pledges of all colors, and so I picked out a green one and signed it Jerry Dolan. It means a Hundred Dollars between now and December 31st, but Uncle Sam needs the money, and we'll have to find it for him.

**July 22, 1918.**

This was a regular Blue Monday. Early this morning a customer stopped his auto out in front of the store and came in and hopped all over me. It seems that his office girl had called up and said that a plumber was needed out at this man's house, and of course she didn't know what had to be done except that they wanted a plumber in a hurry, and so we had sent one of the boys out there with the usual repair outfit, and he had to come back to the shop for a few things, and this customer was red headed about it. He said we ought to be able to take everything along and not be running back and forth. Well, they say that good business men always allow that the customer is always right, and after having one cheek slapped they turn the other one, and so I tried that but it didn't work on this bird. He was looking for trouble and, when he came up for air, I put my oar in the water and told him a few things about running a plumbing business, and before we got through we was both pretty sore and then the telephone bell rang and I went to answer it, and he beat it so we didn't finish our debate.

**July 23, 1918.**

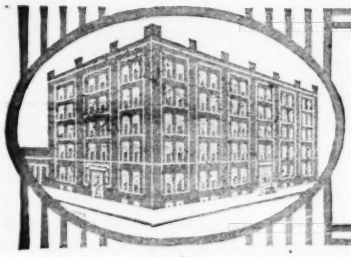
When I got home last night, Mrs. Dolan wanted to know what was troubling me, and I told her nothing at all, but she kept at it, and so I told her about this kicker, and, when I mentioned his name, she told me to forget it and eat supper and then go out and get the flivver ready for a little ride, and she would take care of that fellow the next day.

**July 24, 1918.**

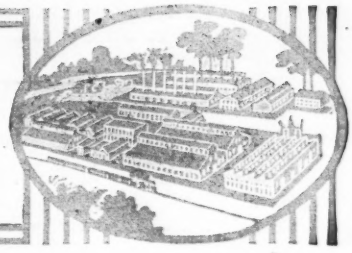
There was a check and a letter at the side of my plate, when I got home for supper, and it was from this kicker and so I gave it the once over and asked Mrs. Dolan about it, but she said to wait, and she would tell all about it, and, when we had finished up with the finest strawberry shortcake that was ever made, she told me about it.

This customer was a dentist and had done some work for Mrs. Dolan before we were married. She had gone there to have some work done, and the first day he examined her teeth and did a little drilling and put in a couple of temporary fillings, and told her to come back the day following. And the second time, he did a little more work and killed a nerve and she had to go back for four treatments on that nerve, and then he said that an X-ray would be needed and he sent her to another dentist, a specialist, who took an X-ray of her teeth, and then the first dentist made a study of the pictures and decided that one of her teeth would have to be extracted, and so he sent her to another dentist, a specialist, to have the tooth extracted. And by and by, after making about twenty visits to his office and several to the specialist's offices, he called it a job and said that everything was O. K. It seems Mrs. Dolan got hold of Hank and found out what had to be done out at the dentist's house and it was some list. In the first place the urgent call was for a plumber to remove a stoppage in the sink waste, and when he got that done there were a couple of faucets to repack, the closet tank valves were leaking, the flushing rim of the bowl was plugged with lime, there was a hole in the refrigerator to be soldered, the automatic gas water heater had to be cleaned and regulated, and there was a little trouble at one of the radiators. He did all that he could with what tools and repairs he had with him, but the bath faucets were old-timers, and the wife insisted that they be repaired, when they should have been replaced, and the plumber didn't have the right gaskets with him, and had to get them at the shop, and the radiator wouldn't heat because the floor had settled and forced the arm down so it was necessary to take out a piece of the pipe and bring it into the shop and cut off a piece so as to bring the arm back into place. Mrs. Dolan had all of this information with her, and she went to see the dentist and he was very nice to her, because he didn't know that she was married to me, and he thought she wanted some more work done, and so she recalled the numerous trips she had made to his office, and her trips to the specialists, and then she told him that she was now the wife of Mr. Jerry Dolan, the Sanitary Engineer, and she proceeded to show him that one of Dolan's plumbers had been out to his house doing a half dozen or more different things, and he had done them without having to consult any specialists, and he had had to go back to the shop just once for extra ma-

(Continued on Page 149.)



# Among the Wholesalers and Manufacturers



## W. A. MYLER CALLED BY DEATH.

Just as we go to press we learn with regret that W. A. Myler, secretary-treasurer and one of the founders of the Standard Sanitary Mfg. Co., died at his home in New Brighton, Pa., on Thursday, July 25th, after several months' illness.

## CENTRAL TRADE GOLF ASSOCIATION HOLDS MONTHLY TOURNAMENT.

The Central Trade Golf Association is holding its July tournament at the Westmoreland Country Club, Pittsburgh, Pa., July 26th, while this issue of "Domestic Engineering" is passing through the press. The trophies, which will be played for at this and other meets during the season, are: The President's Cup, donated by A. M. Byers Co.; the Plumbing News Trophy; the Plumbers' Trade Journal Special Trophy, and the "Domestic Engineering" Special Trophy.

## SANITARY SPECIALTY & MFG. CO. OPENS OFFICES.

The Sanitary Specialty & Mfg. Co., of Chicago, which was recently incorporated with a capital of $10,000 to deal in flush valves, has opened an office at 175 West Jackson Boulevard. A. R. Gilmore is president, and A. S. Magann is secretary and treasurer of the new concern. Mr. Gilmore was formerly connected with the L. M. Rumsey Mfg. Co., of St. Louis, Mo., and as a sales representative has traveled all over the continent.

## WALWORTH MFG. CO. TAKES OVER ALLIS-CHALMERS MFG. CO.'S PLANT AT CHICAGO.

The Walworth Mfg. Co., of Chicago, has recently taken over the large plant of the Allis-Chalmers Mfg. Co., situated at Twelfth Street and Washtenaw Avenue. The plant is being rapidly converted into a pipe warehouse and fabricating plant for power piping and sketch work. Its holding capacity is estimated at 2,500 tons of piping, and it is connected directly with the Baltimore & Ohio, Pennsylvania and Chicago & North Western railroads.

## NATIONAL FEDERATION OF BUILDING INDUSTRIES ORGANIZED AT ATLANTIC CITY.

The National Federation of Building Industries was organized at a national convention held at Atlantic City, N. J., on July 15th and 16th. In response to a call sent out by the Chamber of Commerce of the United States, the most representative gathering of men in the building industry, that has ever convened in this country, met to discuss problems of mutual interest and to formulate plans to co-operate with the Government in the vigorous prosecution of the war.

Leading men of the plumbing and heating crafts—manufacturers, jobbers and plumbing contractors—were among the large number of delegates who attended the convention.

The meeting was called to order by Harry A. Wheeler, of Chicago, president of the Chamber of Commerce of the United States.

"Our excuse for calling this conference," said Mr. Wheeler, in the opening address, "lies in the fact that, as we have been studying the industries of this country and their relationship to the war program, we have found no single industry so far reaching and so much disintegrated as the building trades. There are splendid organizations representing the different trades in the building industries. They are working with great efficiency, insofar as their respective lines are concerned, with the authorities in Washington; but it is not enough that these unit industries should be organized, for no industry making up a part of the building trades can speak for the building trades as a whole. There are conditions that are developing daily, and that are becoming more distressing in some localities, and there are industries that must be properly represented to the Government in order that justice may be done to these industries, and co-operation of the right kind secured in order to help win the war. The Chamber of Commerce of the United States was asked many months ago by the then Council of National Defense to organize the industries of the country, to see that the industries had acceptable and representative war service committees."

Urging that the building industry should be conserved and encouraged, Senator Calder, of New York, said in addressing the convention: "In my judgment it is imperative that you have the Government at Washington understand how all important this whole subject is to the immediate needs of the nation. The nation's building operations this year totaled approximately $1,200,000,000; next year it will hardly exceed $700,000,000. In many cities of the country there are large numbers of mechanics walking the streets."

### Plumbing and Heating Trades Represented.

A war service committee was appointed, consisting of nine members, among them being A. M. Maddock, president of the Thomas Maddock's Sons Co., of Trenton, N. J.

Among those in the plumbing and heating trades, who attended the convention, were: J. T. Duryea, president, Pierce, Butler and Pierce Manufacturing Corporation, New York; John A. Murray, president, John A. Murray & Co., New York; D. F. Durkin, Jr., of Philadelphia, representing the National Association of Master Plumbers; S. A. Ault, vice-president and general manager of the Hoffman Heater Co., Lorain, O.; W. A. Brecht, sales manager, Krupp Foundry Co., Lansdale, Pa.; Jos. F. Evans, vice-president and manager of the Wyoming Valley Supply & Mfg. Co., Wilkes-Barre, Pa.; A. V. Gemmill, secretary of Speakman Supply & Pipe Co., Wilmington, Del.; Henry B. Gombers, secretary of Heating

and Piping Contractors' National Association, New York; George E. Hoffman, secretary of the Monument Pottery Co., Trenton, N. J.; Walter J. Kohler, president of Kohler Co., Kohler, Wis.; A. M. Maddock, president of Thomas Maddock's Sons Co., Trenton, N. J.; George D. McIlvaine, secretary and treasurer, of the National Pipe and Supplies Association, Pittsburgh, Pa.; Claude W. Owen, president and treasurer of E. G. Schafer & Co., Washington, D. C.; J. Chas. Perry, manager of Standard Sanitary Mfg. Co., Philadelphia branch; E. S. Penfrase, sales manager of the J. L. Mott Iron Works, Trenton, N. J.; J. E. Rutzler, treasurer of E. Rutzler Co., New York City; S. B. Strouse, of Warren Webster & Co., Camden, N. J.; H. W. Thorndike, president of F. W. Webb Mfg. Co., Boston, Mass., and John Trainor, of Baltimore, Md., representing the National Association of Master Plumbers.

## OPENS ATTRACTIVE DISPLAY ROOM.

The Ruud Mfg. Co., of Pittsburgh, Pa., has recently opened an attractive display of its gas water heaters in its new office and show room at 66 High Street, Boston, Mass. The Boston office presents an exceedingly inviting appearance. The accompanying picture shows the

**The New England Organziation of the Ruud Mfg. Co., of Pittsburgh.**

company's New England sales representatives and the force of the Boston office. Reading from left to right they are, in the lower row: A. N. Tappan, A. M. Slattery, Miss A. M. Creswell, Miss M. A. Wilson, J. B. Harrington, J. W. C. Price and J. R. Pratt. In the upper row: W. T. Pease, manager; J. Cronin, H. W. Forbes, L. Hamlyn, W. F. Morris, A. C. Austin, Jr., J. W. Geddes, A. L. Gardella, H. D. Mathews, W. L. Logan and T. C. Savory.

## PROGRAM OF POWER PLANT FUEL SAVING.

State Administrative Engineers of the United States Fuel Administration held a conference in Washington recently, discussing the plan of organization in connection with conservation of fuel in power plants throughout the United States. The engineers appointed to date are:

Thomas R. Brown, Pittsburgh, for western half of Pennsylvania; formerly special engineer of Westinghouse Air Brake Co.

George R. Henderson, Philadelphia, for eastern half of Pennsylvania; formerly with Baldwin Locomotive Wks.

Edward N. Trump, New York City, for state of New York; Vice-President of Solvay Process Co.

W. R. C. Corson, Hartford, for New England; secretary Hartford Steam Boiler Insurance Co.

Charles A. Cahill, Milwaukee, for Wisconsin.

Others at the conference were: M. S. Hopkins, Columbus, O.; O. P. Hood, Bureau of Mines, Pittsburgh; Prof. L. P. Breckenridge, Yale University; H. H. Stock, University of Illinois.

The national program will extend into all states east of the Mississippi, and include Louisiana, Missouri, and Minnesota. An administrative engineer will be appointed for each of the states in the area mentioned.

This plan is the result of conferences with the Federal Administrators and their committees for the group of states which together consume about seventy per cent of all coal used in the United States, exclusive of railroads. The plan has received the endorsement of all of these states, as well as approval by the United States Bureau of Mines and the Committee of Consulting Engineers on Conservation and Publicity, which represents the Engineering Council of the four National Engineering Societies.

The slogan of the campaign is "Maximum production with minimum waste." The object is to operate all industries at full capacity, but to make every pound of fuel perform maximum service.

In laying the foundations for the organization it has been anticipated that this work should become a permanent service of the Government.

Ten to twenty per cent, that is, from twenty-five to fifty million tons of coal per year, can be saved by correct operation of steam power plants, using their present equipment, and without installation of new apparatus.

It is considered most important that all existing fuel conservation committees, committees of Chambers of Commerce and National Defense, Manufacturers' Associations and other bodies be continued in full force, and that the co-operation of such organizations be obtained.

The administrative engineer in each state will work under the supervision of the present Federal Administrators. No separate or new organization is contemplated, but sufficient addition to the working force in each state will be made to insure efficient execution of the new function.

The National plan comprises certain fundamentals, as follows:

1. Personal inspection of every power plant in the country.

2. Classification and rating of every power plant, based upon the thoroughness with which owner of said plant conforms to recommendations.

3. Responsibility of rating the plants will fall upon the Administrative Engineer in each state; the rating to be based upon reports of inspectors, who will not express opinions, but will collect definite information. The State Fuel Administrator in his judgment may entirely or partially shut off the supply of coal to any needlessly wasteful plant in his territory.

4. Inspectors are to be furnished from one or more of the following sources:

A. Inspectors of the steam boiler insurance companies.

B. State factory inspectors.

C. Engineering students from technical colleges.

D. Volunteers and others.

The ratings will be based upon recorded answers to questions, each of which will be given a value depending

upon its relative importance to the other questions. Depending upon the efficiency of methods in use in any plant, it may be rated in Class 1, 2, 3 or 4.

The Administrative Engineer in each state will have supervision of electrical and mechanical problems connected with fuel conservation activities contemplated under this plan.

The ratings will be based upon existing equipment. The difficulty, delay and expense involved in the installation at this time of improved power equipment is fully recognized; but experience has proved that ten to twenty per cent of fuel now used in power plants can be saved by improvements in operation alone.

In advance of the first inspection a questionnaire is being sent to every power plant in each district, with notice to the owner that within, say sixty days, his plant will be inspected personally, and the questionnaire will be checked up by the inspector upon his visit. This action will give a reasonable time to any plant owner to improve the operation of his plant and conform to recommendations before his plant is actually rated. Thus, when the inspector calls for the purpose of obtaining and checking up the information form, the plant may receive a much higher rating than would have been the case if no time were allowed between the sending and collecting of the questionnaire.

It is recommended that a board of competent engineers be attached to the conservation committee in each state; also a corps of lecturers to arouse public interest and disseminate engineering information.

The Fuel Administration has prepared a fifty-minute film of moving pictures showing good and bad operation in the steam boiler plant, methods of testing boilers, etc. These pictures will be available to each state in connection with its educational propaganda.

The Administration is also preparing a series of official bulletins on engineering phases of steam and fuel economics. Some of these are now ready for printing. They will include:

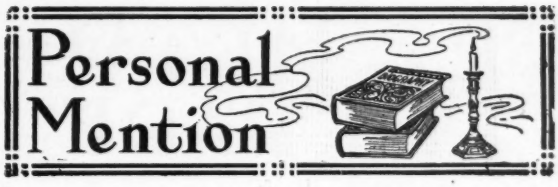
1. Boiler and Furnace Testing.
2. Flue Gas Analysis.
3. Saving Steam in Heating Systems.
4. Boiler Room Accounting Systems.
5. Saving Steam and Fuel in Industrial Plants.
6. Burning Fine Sizes of Anthracite.
7. Boiler Water Treatment.

In addition to this service, a list has been prepared in Washington of competent engineers for each state and is available for use of each local Administration. As the work develops, still further constructive assistance is contemplated for helping owners to bring their plants up to a high plane of economic operation.

## COMBUSTION ENGINEERS WANTED.

The Bureau of Oil Conservation, Oil Division, United States Fuel Administration, is desirous of securing a combustion engineer for each of the following districts, who will act as an inspector visiting all plants within his district using fuel oil and natural gas: Boston, Providence, New York City, Philadelphia, Pittsburgh, Buffalo, Detroit, Chicago, Minneapolis, Tulsa, New Orleans and San Francisco.

It is desirable to have these men act as volunteers where possible, but the administration is prepared to pay a reasonable compensation for men who cannot afford to give their service to the Government. Only men who have had experience in fuel oil and natural gas combustion would be of value.




J. A. Riordan, vice-president and general manager of the Standard Sanitary Mfg. Co., of Toronto, Ont., was in Chicago on business, Monday, July 22nd.

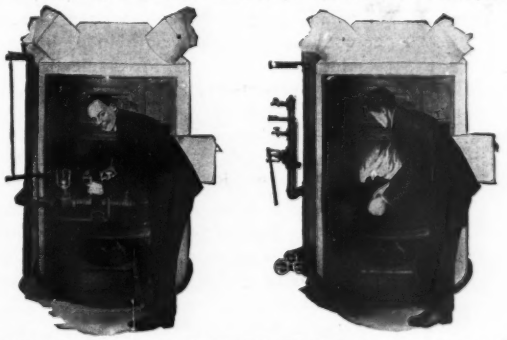
Benjamin Weil, of Weil Bros., Chicago, has recently returned from a week's stay in a local hospital where he underwent treatment at the hands of an oculist.

G. H. Young, manager of the Chicago branch of the Burnett-Larsh Mfg. Co., of Dayton, O., has recently returned from a selling drive through Wisconsin, Illinois and Iowa. In spite of the resistence caused by abnormal trade conditions, he states that business prospects are developing satisfactorily. R. P. Watson, the Michigan representative of the company, has recently been transferred to a wider sales territory in eastern Illinois.

B. A. Hungerford, manager of the Chicago branch of the Pittsburg Water Heater Co., of Pittsburgh, Pa., is recovering from an operation which was performed recently at the St. Elizabeth Hospital. It is probable that he will remain in bed another week before he returns to his desk. F. G. Kune, manager of the Dallas (Texas) branch of the company, was a recent visitor in Chicago.

## A NEW REMOVABLE GAS BURNER FOR HOUSE HEATING BOILERS.

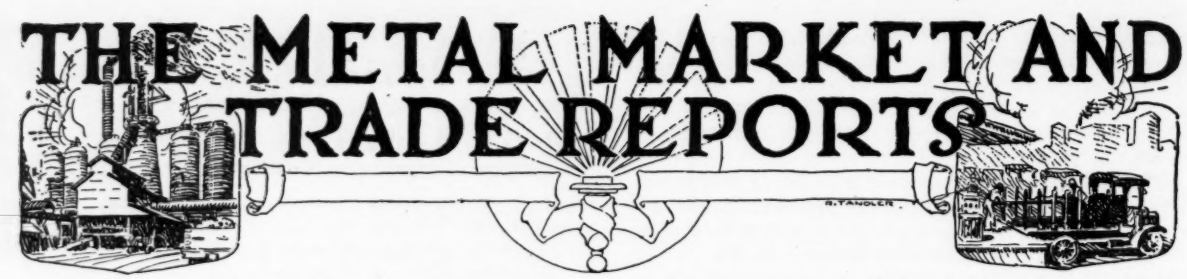
The accompany illustrations show a new removable gas burner, designed for use in house heating boilers or furnaces in sections of the country where natural gas is obtainable. This device is manufactured by the Franklin Plumbing & Heating Co., of Cincinnati, O., who state that it proved its value in many homes last winter in the natural gas sections, when the supply of coal ran short. In introducing it to the trade the manufacturer emphasises



The New Device Which Makes It Possible to Use Natural Gas Or Coal As Fuel.

low cost of original installation, which can easily be done by any plumber or steamfitter, satisfactory operation in hot water or steam boiler and in hot air furnaces, suitable for use in heating houses with six to ten rooms, and adding that the owner of a boiler equipped with this burner can in one minute change it to burn gas or coal as desired or needed, and this without the use of tools. For the natural gas regions it is therefore an exceptionally valuable device, enabling its owner to use either gas or coal and thus make him prepared for the feared fuel shortage.

# THE METAL MARKET AND TRADE REPORTS



### Steel and Iron.

There is no doubt now that the principal leaders in the steel industry are uniting their efforts to bring up production to full capacity, because the main factor in the execution of the Government's tremendous war program is steel. The War Industries Board and the large producers are planning so that the flow of steel will be undisturbed to manufacturers working on war essentials. The Government will not hesitate to enlarge the list of non-essentials, if necessary, and the automobile industry is believed now to be destined to be curtailed in the supply of steel, especially for the construction of pleasure cars. The War Industries Board estimates the Government's requirements for the last half of the year will take all of 20,000,000 tons of steel and the entire production has never been more than 16,500,000 tons in that length of time, and the only way that conditions can possibly be met is to make drastic curtailment to the producers of non-essentials. Additional orders for freight cars, which the Government will require, will total 400,000, and it is the intention to place these orders over an extended period in the amount of 100,000 cars at each time. No agreement in the price of rails has been reached as yet, but the Steel Institute revised the prices for certain grades of scrap, wire nails and malleable castings. The steel director announced last week that pig iron producers may distribute iron in accordance with the schedule of purposes and without priority certificates. This new system, it is believed, will establish something in the line of an open market later on. It is understood that the notice can be construed as allowing producers who are working on the 80 per cent Government requirement basis to distribute the remaining 20 per cent for domestic uses. The Government requirements will hardly suffer because of this leeway, because the furnace men are required to make a report weekly on shipments, and if there was any disposition to slight war demand, this disposition could not stand. A more hopeful feeling exists that production of pig iron at present is on a scale to meet all requirements, and that the new order eliminating priority certificates is the expression of this situation. Prices are based upon the old standard grade of No. 2 foundry iron at $33, and basic iron at $32, at the furnace.

### Copper.

Production of copper is about 50,000,000 pounds less for the first six months of 1918 than for the corresponding period of the year before. The total production up to July 1st amounted to 1,220,000,000 pounds, which is a tremendous volume, but as requirements continue in large volume the shortage is felt. Producers are not able to accumulate any stocks, as the output goes into consumption as fast as produced. The increase in wages is expected to cause some increase in laborers, a shortage of which is the chief cause of the shortage in production.

### Tin.

The foreign markets for tin have been working to a higher level of prices during the past week, and the reason was made clear when the cables announced that new British regulations were pending, which would influence trading. Export licenses for Straits tin will have to be secured in the future from the Singapore authorities. Some progress to fix the price of tin by the British Government was made, when it was decided that the London and New York price shall be the Singapore price plus a reasonable profit. With Straits spot quoted at the equivalent of 78 cents a pound, the present New York price is too high in view of the latest development, and adjustments are to be expected in the near future. There are no offerings of Chinese tin as the railroad troubles in China will not allow any shipments during August and September. Stocks are low and spot is held firmly.

### Lead.

Spot supplies of lead are scarce and the situation continues very firm, as the Government demand has taken all nearby metal out of the market. Production is hampered by labor troubles in the West, and producers have to husband supplies in order to avoid a shortage for war requirements. There has been no change in the agreed price at the basis of 7.75 cents East St. Louis, and 8.05 cents at New York.

### Spelter.

The market for spelter showed a tendency to drift, and prices worked lower under the influence of slight demand and larger offerings. New York delivery is held at 8.65 to 8.80 cents and East St. Louis is quoted at 8.40 to 8.50 cents.

### Other Metals.

Quotations on other metals in New York are as follows:

| | |
|---|---|
| Aluminum (in 100-pound lots) | 49 cents per lb. |
| Antimony, Chinese and Japanese | 18 cents per lb. |
| Solder No. 1 | 65 cents per lb. |

### New York Old Metal Market.

The following prices are current for old metals:

| | Buying. | Selling. |
|---|---|---|
| Copper, heavy | 24 cents | 25 cents |
| Copper, light | 20 to 21 cents | 23 cents |
| Brass, heavy | 14 to 14½ cents | 15¾ cents |
| Brass, light | 12 to 12½ cents | 13½ cents |
| Lead, heavy | 6½ to 6¾ cents | 7¼ cents |
| Tea lead | 6 to 6⅛ cents | 6½ cents |
| Zinc scrap | 6¼ to 6½ cents | 7½ cents |
| Cocks and faucets | 18½ to 19 cents | 20 cents |
| Mixed babbitt | 8 to 8¾ cents | 9½ cents |

### Chicago Old Metal Market.

Chicago wholesale dealers' prices are nominally as follows:

| | Buying. | Selling. |
|---|---|---|
| Heavy yellow brass | 15 to 15½ cents | 16½ cents |
| Brass, light | 11 to 11½ cents | 13 cents |
| Brass, medium | 12¼ to 12¾ cents | 13¾ cents |
| Red brass | 21½ to 22 cents | 23 cents |
| Cocks and faucets | 17 to 18 cents | 19 cents |
| Copper, heavy | 23 to 23½ cents | 24½ cents |
| Copper, light | 20 to 20½ cents | 22 cents |
| Lead, heavy | 6¾ to 7 cents | 7½ cents |
| Tea lead | 5¾ to 6 cents | 6½ cents |

| | | | |
|---|---|---|---|
| Lead dross | 4¼ to 4½ cents | | 5½ cents |
| Solder joints | 15¼ to 15¾ cents | | 16½ cents |
| Old iron pipe | 23.75 | | $24.25 |

### The Pipe Market.

No changes have been announced in the pipe market during the last two weeks.

Quotations on less than car lots of full weight steel pipe remain as follows:

| | Butt Weld. | | Lap Weld. | |
|---|---|---|---|---|
| | Blk. | Galv. | Blk. | Galv. |
| ⅛ to ⅜ inch | 38 | 10 | .... | .... |
| ½ inch | 42 | 26 | .... | .... |
| ¾ to 3 inch | 45 | 30 | .... | .... |
| 2 inch | .... | .... | 38 | 24 |
| 2½ to 6 inch | .... | .... | 41 | 27 |
| 7 to 12 inch | .... | .... | 38 | 23 |
| 12 to 14 inch | .... | .... | 28½ | .... |
| 15 inch | .... | .... | 26 | .... |

The quotations apply to all shipments from stock, regardless of quantity.

On extra strong and double extra strong steel pipe in less than car lots, quotations are as follows:

| | Extra Strong | | | | Double Extra Strong | | | |
|---|---|---|---|---|---|---|---|---|
| | Plain Ends | | Plain Ends | | Plain Ends | | Pl'n Ends | |
| | Butt Weld | | Lap Weld | | Butt Weld | | Lap Weld | |
| | Blk. | Galv. | Blk. | Galv. | Blk. | Galv. | Blk. | Galv. |
| ⅛, ¼ and ⅜ inch | 29 | 9 | .... | .... | .... | .... | .... | .... |
| ½ inch | 34 | 14 | .... | .... | 25 | 5 | .... | .... |
| ¾ to 1½ inch | 38 | 18 | .... | .... | 28 | 8 | .... | .... |
| 2 to 2½ inch | 39 | 19 | .... | .... | 30 | 10 | .... | .... |
| 3 inch | 39 | 19 | .... | .... | .... | .... | .... | .... |
| 2 inch | .... | .... | 31 | 12 | .... | .... | 23 | 4 |
| 2½ to 4 inch | .... | .... | 34 | 15 | .... | .... | 25 | 6 |
| 4½ to 6 inch | .... | .... | 33 | 14 | .... | .... | 24 | 5 |
| 7 to 8 inch | .... | .... | 29 | 10 | .... | .... | 19 | List |
| 9 to 12 inch | .... | .... | 24 | 5 | .... | .... | .... | .... |

With threads only, the basing discount is 1 and 1½ points lower. With threads and coupling the basing discount is 3 points lower. The quotations apply to all quantities less than car lots.

Quotations on full weight genuine iron pipe, in less than car lots, are as follows:

| | Butt Weld. | | Lap Weld. | |
|---|---|---|---|---|
| | Blk. | Galv. | Blk. | Galv. |
| ⅛ and ¼ inch | 16 | +13 | .... | .... |
| ⅜ inch | 17 | +12 | .... | .... |
| ½ inch | 21 | 1 | .... | .... |
| ¾ and 1 inch | 26 | 8 | .... | .... |
| 1¼ inch | 26 | 8 | 11 | +6 |
| 1½ inch | 26 | 8 | 18 | 2 |
| 2 inch | .... | .... | 19 | 3 |
| 2½ to 6 inch | .... | .... | 21 | 6 |
| 7 to 12 inch | .... | .... | 18 | 3 |

These quotations are f. o. b. Pittsburgh, and apply to all shipments from stock, regardless of quantity.

On extra strong and double extra strong genuine wrought iron pipe, with plain ends and in less than car lots, the quotations are as follows:

| | Extra Strong | | | | Double Extra Strong | | | |
|---|---|---|---|---|---|---|---|---|
| | Butt Weld | | Lap Weld | | Butt Weld | | Lap Weld | |
| | Blk. | Galv. | Blk. | Galv. | Blk. | Galv. | Blk. | Galv. |
| ⅛ to ⅜ inch | 11 | +9 | .... | .... | .... | .... | .... | .... |
| ½ inch | 16 | +4 | .... | .... | 3 | +17 | .... | .... |
| ¾ and 1 inch | 22 | 2 | .... | .... | 8 | +12 | .... | .... |
| 1¼ inch | 22 | 2 | 8 | +12 | 8 | +12 | .... | .... |
| 1½ inch | 22 | 2 | 14 | +6 | 8 | +12 | 3 | +16 |
| 2 inch | .... | .... | 16 | +4 | .... | .... | 3 | +16 |
| 2½ to 4 inch | .... | .... | 18 | +2 | .... | .... | 5 | +14 |
| 4½ to 6 inch | .... | .... | 17 | +3 | .... | .... | .... | .... |
| 7 to 8 inch | .... | .... | 9 | +11 | .... | .... | .... | .... |
| 9 to 12 inch | .... | .... | 4 | +16 | .... | .... | .... | .... |

These retail prices are f. o. b. Pittsburgh, and apply to all quantities except in car lots. With threads only, the basing discount is 1½ points lower. With threads and couplings, the basing discount is 3 points lower.

To ascertain the price in any city, deduct the proper freight rate from Pittsburgh to that city. To illustrate: ¾ to 3-inch steel pipe, black, is 45 per cent off, Pittsburgh. The freight to Chicago is 39 cents, or it would be 45 per cent minus .039, or .411 per cent Chicago for 10 cents a hundred freight you should deduct one point.

## LARGE METAL FIRMS TAKEN OVER BY ALIEN PROPERTY CUSTODIAN.

A press dispatch from Washington says that the alien property custodian has taken over L. Vogelstein & Co., and Beer, Sondheimer & Co., of New York, prominent firms in the metal trade.

L. Vogelstein & Co., before the war was closely connected with Aaron Hirsch & Sohn, of Frankfort-on-Main, Aaron Hirsch being a special partner in the concern. They used to occupy the position of selling agents for the American Zinc & Lead Smelting Co., the United States Metals Refining Co., and the United States Smelting Co., but about three years ago these concerns took over the selling themselves. They are at present the eastern agents for the Bunker Hill Sullivan Co., large producers of pig lead.

Beer, Sondheimer & Co., until after the war started, was operated here as a branch of the German firm of the same name, but was later incorporated under the New York state laws. They own or control the National Zinc Co., zinc smelters and the Norfolk Smelting Co., copper smelters.

## FRENCH PIG IRON CONTROL.

The latest order of the French Ministry of Munitions relative to control of pig iron and ferroalloys provides as follows: "From July 1st all pig iron and certain ferroalloys will only be delivered against orders issued by the Service of Metallurgical Products of the Ministry of Munitions, and will be invoiced to consumers at an average price, fixed for each quarter by the Minister of Munitions, which will only vary according to the grade of the iron. Accounts with the producers will be settled monthly through the medium of a clearing house. As the exact price to be paid to the manufacturer can only be definitely fixed after some time, the monthly settlements will be provisional, and will be adjusted later by final payments."

## GERMANS BATTLE FOR FRENCH MINES.

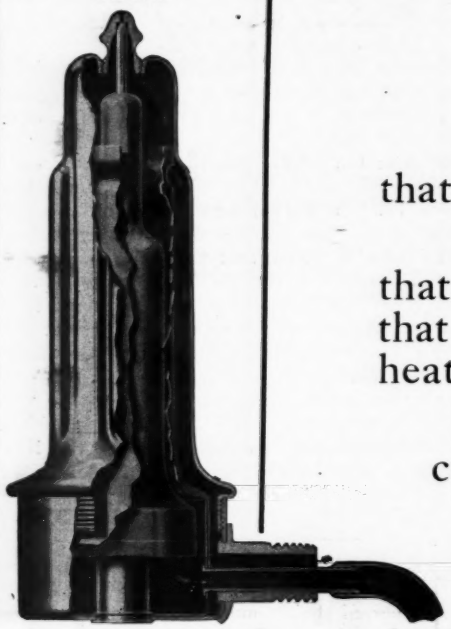
A silent but fierce fight for millions is going on between Germany's most powerful industrial interests over a share in the spoils of the French-owned mines and smelting works in German Lorraine. The iron ore in this region is estimated at 650,000,000 tons. The chief owner is Baron de Dendel, reputed to be the richest man in Europe, owning ore fields and iron foundries in four countries, France, Belgium, Luxemburg and Lorraine. His fortune is estimated at $100,000,000.

## LITTLE ESCAPES THE HUNS.

Evidently if one solitary thing of value escapes the Germans in Belgium it is not going to be the fault of the Germans. Their latest exploit has been to dredge the canal at the Cockerill Steel Works at Seraing, by which they recover copper articles, machinery, taps and pipes, which had been hidden there, and which they value at more than 1,000,000 francs.

Contribute to the Red Cross Fund.

No. 1 Hoffman Siphon Air Valve



# Dr. Garfield's O

## COAL FUEL MUST

He does not merely **request** people **to be** e
that each user of a coal-burning apparatus wil

Saving coal does not mean doing without h
that the heat units generated from the coal co
that every heating system in operation next wi
heat economically if the owners are to be kept

The opportunity has never been so great a
customers and the nation by installing effici

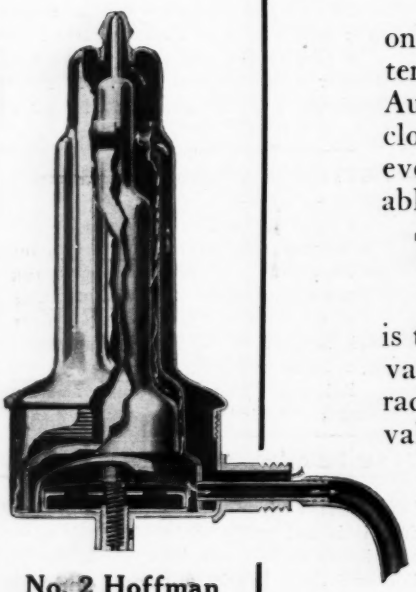
The business is waiting for you NOW.
Venting Valves will make any steam hea
saving of coal and provide perfect heating
find it easy to replace inoperative and defecti
a good profit on your work.

### The No. 1 Hoffman Siphon Air Valve

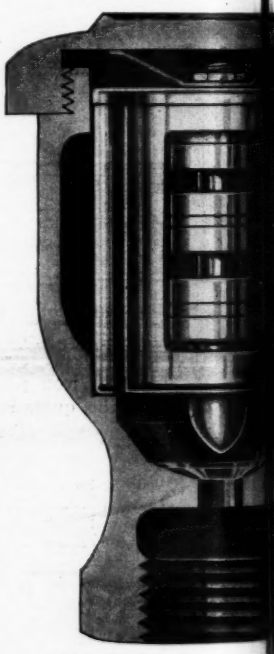
on a radiator assures comfortable room temperature from minimum amount of coal. Automatically passes all air freely but closes tight against steam and water. Keeps every loop steam hot to end. Non-adjustable. Use on gravity systems.

### The No. 2 Hoffman Siphon Air and Vacuum Valve

is the only non-adjustable air and vacuum valve. Permits air to be vented freely from radiator and prevents its return through valve. Radiator heat continues after pressure goes off, which means added heating service from every pound of coal burned. Use on gravity vacuum systems.



No. 2 Hoffman Siphon Air and Vacuum Valve



No. 8 Hoffman Return

512 Fifth Avenue
New York

HOFFMAN VALVES

**Hoffman Specialt**

130 North Wells Stre

# ...olers Are That

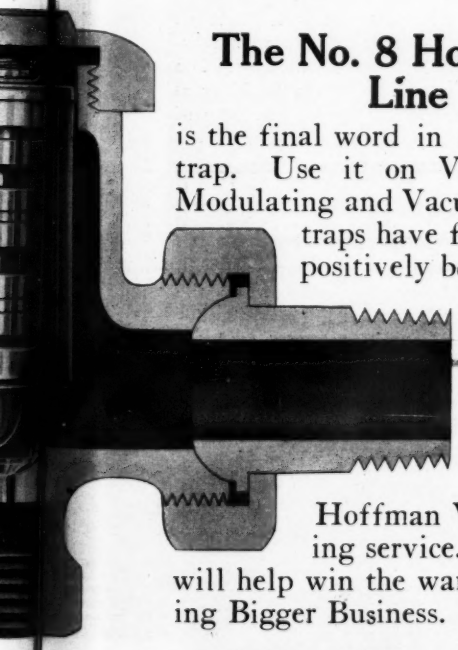
# ...T BE CONSERVED

...be ...eful in the use of coal but has ruled ...will allowed **so much coal and no more.**

...out h...or suffering from lack of it. It means ...con...med must all be utilized. It means ...t wi...r must be made to produce sufficient ...kept ...mfortable.

...eat a...t is now for the steamfitter to serve his ...ffici..., coal-saving equipment.

...W. Go after it. Explain how Hoffman ...hea...g system more efficient, effect a big ...ng ...nfort with the coal allotment. You will ...ecti... valves with the Hoffman and make



## The No. 8 Hoffman Return Line Valve

is the final word in a low pressure steam trap. Use it on Vapor, Vapor-Vacuum, Modulating and Vacuum jobs, where other traps have failed. It distinguishes positively between air, steam and wate r. Noiseless, Automatic, Thermostatic, Non-Adjustable.

It is your patriotic duty to install Hoffman Valves for every venting service. Start today and you will help win the war while you are Building Bigger Business.

...urn... Valve

***Ask Your Jobber Specify the Hoffman***

**...alt... Company**
...Stree... Chicago

HOFFMAN VALVES

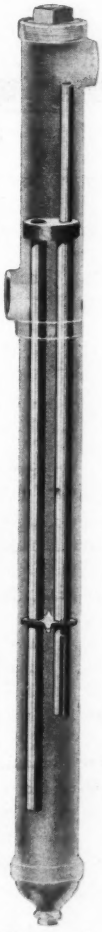
215 W. 7th Street
Los Angeles

# Hoffman Equalizing Loop

## Makes Vapor Heating Absolutely Safe

## BECAUSE:

First: Maintains an unvarying water line in the boiler, independent of boiler pressures, that is, no matter whether the boiler pressure is 8 oz. or 5 lbs., the water line in the boiler will maintain at a constant level.



Phantom View

Second: It maintains, when boiler pressure is more than 10 oz. a fixed pressure difference between the main steam line from the boiler and the main air return from the radiators, of 10 oz. In other words, the pressure in the steam main is always 10 oz. ahead of the pressure in the return main.

Exterior View

Third: It does these two things automatically without noise or commotion in any way, shape or manner, and without thought on the part of the user. It is always on guard and can always be depended upon to do the two things it is designed to do, i. e., maintain an unvarying water line between 8 oz. and any pressures above, and maintain a fixed pressure differential between the steam main and the return air line.

***Can be used on old or new work***

# AMONG THE PLUMBING AND HEATING CONTRACTORS

## Illinois

**Chicago and Vicinity.**

William Lees, of 548 West Washington Street, has recently been awarded the contract for the installation of the heating system in a boy's clubhouse, to be erected at a cost of $45,000, at 28th Street and Ridgeway Avenue.

Joseph W. Cannon, of 11323 South Michigan Avenue, will install the plumbing system in a factory, to be built at a cost of $30,000, at 2647-53 West Van Buren Street.

Wm. D. Morant, of 1743 Arthur Street, has secured the contract to install the plumbing system in an apartment building and garage to be built at a cost of $18,000 at 6622-24 Glenwood Avenue; also the contract to install the plumbing in a three-family dwelling, to be erected at a cost of $11,000, at 6451 Bosworth Avenue.

W. Glustoff & Bros., of 2511 West Division Street, will remodel the plumbing in a church at Tallman and Le Moyne Streets.

J. E. O'Malley, of 750 Wells Street, has been awarded the contract for the installation of plumbing in a two-family building, to be constructed at a cost of $10,000, at 1340 Arthur Avenue.

The Phillips-Getschow Co., of 130 West Kinzie Street, has recently secured the contract for the installation of the heating system in a theater building, to be constructed at a cost of $30,000, at 1143-45 Wilson Avenue. The plumbing contract was awarded to Haas & Hilton, of 2609 Wentworth Avenue.

The Fullerton Plumbing & Heating Co., of 1409 Fullerton Avenue, will install the plumbing system in a $9,000 factory at 1997-99 Clybourn Avenue.

Frank McGarr, of 1544 West 63rd Street, has been awarded the contract to install plumbing systems in two new bungalows to be erected on Ashland Avenue.

George Bockus, of 2573 East 74th Street, will install the plumbing in a warehouse, to be built at a cost of $12,000, at 2501 West 48th Street.

H. P. Reger & Co., of 5514 Lake Park Avenue, have secured the contract to install the plumbing system in a hospital to be remodeled at 1519 South California Avenue. The heating contract was awarded to A. Kilander, of 126 South Clinton Street.

A. J. Fisher, of 3919 Lincoln Avenue, will install modern plumbing in an addition to a residence, to be built at a cost of $5,000, on Nicolett Street, near East Circle Avenue.

John Fitzgerald, of Lake Forest, has been awarded the contract for the installation of the heating and plumbing systems in a residence to be built at a cost of $50,000 in that suburb.

K. G. Zajacek, 2212 South 59th Street, has secured the contract to install the plumbing system in a cottage to be erected at 5718 West Twenty-fourth Street.

**Other Cities in the State.**

H. E. Thompson, of De Kalb, will install the heating system in a store, lodge and office building, to be erected at a cost of $50,000, in that city.

George Hirth, of 210 North Illinois Street, Belleville, has been awarded the contract for the installation of the plumbing system in the residence of Leon Frick at East Sycamore Street. He also has several smaller contracts on his books.

Peter Hiner, of Chester, has secured the contract to install the plumbing in a bank to be built at a cost of $9,000 in that city.

## Missouri

The St. Louis Engineering & Heating Co., 1417 Olive Street, St. Louis, has been awarded the contract for the installation of the heating system in a school, to be erected at a cost of $40,000, at East Alton.

William Schwehr, of the firm of Wm. Schwehr & Sons, 828 North Eighth Street, St. Louis, is one of the oldest men of the trade in the West. He is eighty-five years of age and has been at the same business address for over sixty years. He is still an active man and keeps in touch with affairs in the plumbing trade. In 1883 he was treasurer of the St. Louis Master Plumbers' Association. His son, William Jr., is in active charge of the business at the present time. He was for several years secretary of the Missouri State Association of Master Plumbers.

## Iowa

The Ryan Plumbing & Heating Co., of Davenport, will install heating, plumbing and sewerage systems on the percentage basis in the U. S. Artillery Proving Buildings, to be constructed at a cost of $600,000, at Rock Island, Ill.

**Waterloo Plumbing & Heating Co.'s Establishment at Waterloo, Iowa. The Proprietor, J. C. Ohaver, is Standing in the Door.**

# Georgia

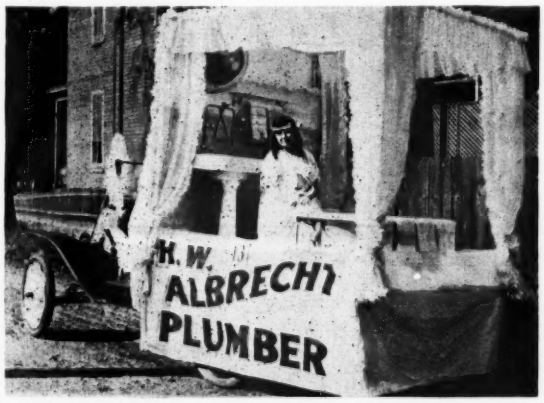
The Master Plumbers' Association of Atlanta has recently filed a petition with the City Council asking it to change the method now followed in having plumbing work done for the city, and a committee has been appointed to make a thorough investigation.

Seckinger & Garwes, of 448 Drayton Street, Savannah, have secured several good contracts for remodeling plumbing and heating systems. This firm recently finished the installation of plumbing and heating systems in the De

The Plumbing and Heating Establishment of Seckinger & Garwes, at Savannah, Ga.

Soto Hotel, the Sugar Refining Co.'s new building, and the Savannah Golf Club.

H. W. Albrecht Plumbing & Heating Co., of Columbus, recently received first prize in a large parade in which the company had an exceptionally neat float, its main




H. W. Albrecht's Plumbing Float in a Recent Parade in Columbus, Ga.

feature being an up-to-date bath-room outfit, which attracted much attention.

C. W. Baxter Plumbing & Heating Co., of Atlanta, has recently secured the contract for the installation of plumbing in a fourteen-apartment building, now being erected on Ponce de Leon and Kenesaw Avenues.

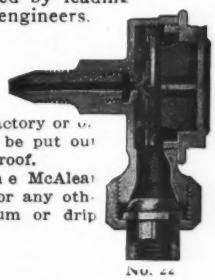
Tracey Wood, formerly a plumbing contractor in Illinois, is now engaged in business in Georgia, having purchased the plumbing establishment of J. C. Clay & Co., in Dawson. He has become a regular Dixie citizen and is making friends rapidly in his new home town. He is doing business under the firm name of T. Wood & Co. At the present time he is preparing to go over the top in a campaign for selling and installing water supply systems in the rural sections.

McALEAR

Vapor Heating System. Vacuum Heating System.
Vacuum Air Line System.
Two-Pipe Vacuum System.

Perfect heat without noise, leakage, damage or waste.
**The biggest forward step in the science of steam heating.**
Preferred and endorsed by leading architects and heating engineers.

McAlear Thermo Vent Automatic Air Valve.
So designed and constructed that no adjustment is necessary either at factory or on the job. Cannot be put out of order. Fool-Proof.
Used with the McAlear Vacuum System or any other air line vacuum or drip pipe work.



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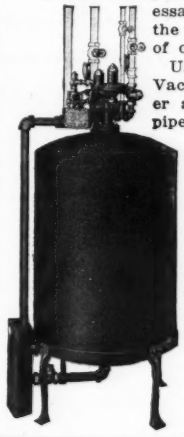


McAlear Automatic Vacuum Pump.
Adaptable to all kinds of steam heating systems, new or old.
Quick-acting. Simple. Economical.
Requires 80% less power than any other pump doing same work.
The ONLY pump that has for its power plant a thermostatic motor actuated by temperature of steam and water.
Write for Book, "25 Years of Know How." It's free.

**The McAlear Mfg. Co.**
223 W. Erie St. CHICAGO

MAXCO

## Seat-Operating Combinations

Plate 308-A

are very much in demand for schools, factories, etc., because they successfully withstand the hard usage unavoidable in these places.

Simply constructed—no weights, balls or springs to cause trouble.

Strong, positive flush assured after each operation.

The sanitary features of the MAXCO alone make it the most desirable self-operating closet on the market.

Guaranteed for five years.

***It is worth your while to investigate.***
***Write today for particulars.***

**Sherwood Brass Works**
**1167-1175 Jefferson Avenue, East**
**Detroit, Mich.**
***Largest Manufacturers of Aluminum Tanks and Seats in the World***

**UNITED** LEAD TIN BRASS **LINED PIPE**

Longest-lived, most economical pipe made. Also "United" acid-proof pipe and fittings.

**UNITED LINED TUBE & VALVE CO.**
**186 Franklin Street BOSTON, MASS.**

**THE SIGN OF GOOD FLASHINGS**

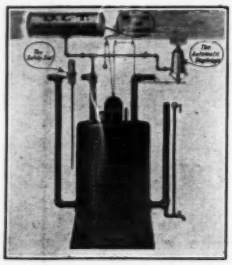
GALVANIZED COPPER ALL LEAD

We are the only concern in the country making a complete line of Adjustable Roof Flashings in Galvanized Iron, Copper or All-Lead.

Simplex Flashings are the best that HONEST CONSTRUCTION, SUPERIOR MATERIALS and EXPERT WORKMANSHIP can produce.

Ask your jobber.

**Simplex Mfg. Company** 313 So. Clinton St., Chicago, Ill.



**D & T Original Tank - in - Basement System**

costs less to install than other hot water heating systems, is cheaper to maintain and most efficient in service.

Automatically regulates dampers from 90 to 240 degrees. Rapid circulation; maintains even temperature.

**Guaranteed for Five Years.**

If you are not familiar with the D & T System, it will pay you to get acquainted. Write for latest Booklet.

**D & T Manufacturing Co.** 1911-13 Pine Street, ST. LOUIS, MO.

**The demand for our Ingot Metal has made H.I.M. grow.**

The largest Brass Goods Manufacturers in the middle west are using exclusively our **Red and Yellow Ingot Metal.**

Brass Founders using **H. I. M.** Ingot Metal are paying no attention to the high price of Copper and Spelter.

If you neglected to buy H. I. M. write for particulars.

**HARTMAN INGOT METAL CO.**
**2511 West 21st Street CHICAGO, ILL.**

# Kentucky

**Louisville and Vicinity.**

The F. A. Clegg & Co. are being kept very busy this season, having several large contracts for heating and ventilating churches, residences, etc., besides three major contracts, which include the Quartermaster's Depot, at Jeffersonville, Ind.; a new power plant for the K. & I. R. R. Co., and the remodeling of a new plant for the Magic-Keller Soap Co. Mr. Clegg is back from a short trip to Frankfort, Ky. His son, A. W. Clegg, in the quartermaster's service, is now a top sergeant at Fort Devens, Mass.

Meetings are now being held every Thursday by the Louisville Examining Board of Plumbers in order to draft a city plumbing code to conform with the state law. The board is composed of George Schardein, W. H. Matlack, master plumbers, F. H. Scott, city plumbing inspector and former master plumber, who is chairman of the board, and William Ruup and Charles Coulter, journeymen.

J. J. Bosemer has gone to Hardin Springs, where he expects to spend a vacation of about two weeks during the quiet period, which promises to end shortly with Government work in this section. Mr. Bosemer a short time ago gave up his Third Street shop, erecting a new building at his home in Oakdale, where he is now handling all of his operations. By giving up the Third Street office and store he has reduced his overhead operating expenses.

The Louisville Master Plumbers' Association has passed up its annual picnic, the members figuring that it was non-essential and not in keeping with the times. Last year the picnic was passed up, due to the rush of business in connection with work on Camp Taylor.

Charles Lynn, master plumber, is out again after a siege as the result of a broken arm, which was improperly set, and had to be broken and reset. Mr. Lynn fell when he stepped on a slippery board while supervising work.

J. H. Burwinkle has been out for some time past, and able to get around about as well as ever in spite of the fact that for a time his recovery was doubtful.

# Ohio

**Cincinnati and Vicinity.**

Frank Niesen & Co., of 1208 Sycamore Street, have recently installed three hundred water meters in residences in Cincinnati.

Geerin Bros. & Co., of 422 East Eighth Street, will install heating systems in the Gifts Theater Building, the Ault & Wiborg Co.'s Building and in a large power plant.

Martin Daly, of 626 Elm Street, has completed the plumbing installation in the United States Printing Co.'s building and in several residences.

Thomas Canary, of 204 West Seventh Street, has been awarded the contract for installing the plumbing systems in a theater building at Wilmington, and in several manufacturing plants in Cincinnati.

James J. Doud, of 313 East Fourth Street, will install the plumbing system in the Jewish Hospital, which will be remodeled. He is also installing plumbing and heating systems in a number of residences.

Frank G. Hamer, of Cincinnati, has recently installed plumbing systems in many residences in the suburbs and in the vicinity of Cincinnati.

A duplex apartment building of sixteen rooms will be built by Mrs. Charles P. Taft on the property adjoining the Anna Louise Inn, which has been cleared and will probably eventually be used as a part of that institution. The cost of the building will be about $27,000.

The Ohio Building & Construction Co., general contractor for the Morris Plan Bank Building, on East Sixth Street, has sublet the plumbing to the Murdock Plumbing Co.

George F. Schmitt, of 2550 Vine Street, is remodeling the plumbing systems in several residences in the city and vicinity.

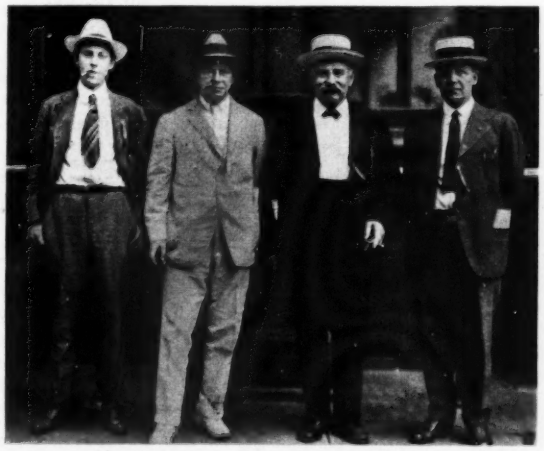
Frank J. Heider, of 2727 Vine Street, has been awarded the contract for the installation of plumbing systems in seven residences in the suburbs and in the Burckhardt apartments.

"Ted" Schlemmer, of the Schlemmer Plumbing & Heating Co., of Cincinnati, was the popular host at a stag supper which he gave to his friends in the trade at the Cuvier Press Club, on Tuesday evening, July 16th. Among his guests were: C. P. Darrock, of L. Wolff Mfg. Co., Chicago; William Doud, of J. J. Doud Plumbing Co., Cincinnati; W. H. Cook, of Chicago, and a number of master plumbers of Cincinnati. A. F. Keveney, of "Domestic Engineering," was chosen as chief scorer in the pool and bowling games, which followed later in the evening.

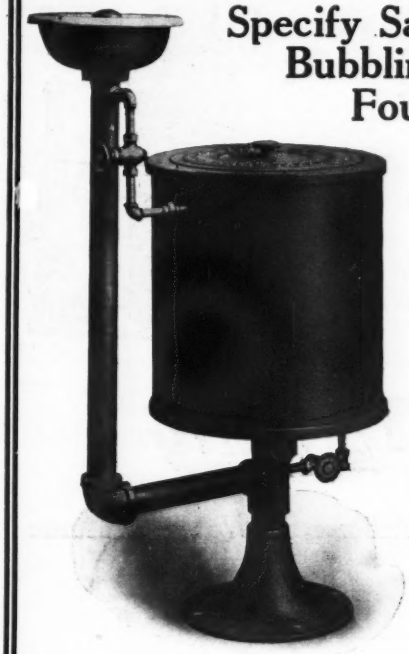
The Thomas J. Dyer Co., of Third and Walnut Streets, have completed the plumbing systems in the Inter Southern Life Insurance Co.'s building, Louisville, Ky.; the Central Life Insurance Building, Cincinnati; First National Bank Building, Minneapolis, Minn.; the Seelback Hotel addition, Louisville, Ky.; also the plumbing systems in 165 houses for the American Sheet & Tin Plate Co., at Gary, Ind., and in 100 houses for the concern at Farrell, Pa.

Gus Kirchheiner & Co. have increased their showroom and office space, rendering their place of business very attractive.

The American Warming & Ventilating Co., of 1017-1019 Summit Street, Toledo, has recently installed heating systems in school buildings in the following cities: Detroit, Farmington, Mich., Springfield, Wadsworth, Warren, Youngstown and Painesville, all of Ohio. The company has installed heating systems in 1,400 public schools in Ohio and Michigan since 1896.



I. D. Carlton, William Haas, "Pop" Schneider and Jos. V. Hirsch, all of Dayton, O.—From "Domestic Engineering" Photo, Taken at the St. Louis Convention of the National Association of Master Plumbers.

**Specify Sanitary Bubbling Fountains**

**For Factory and Office Buildings**

**They Increase Efficiency and Health of Employes.**

Hundreds of America's largest concerns have their plants equipped with these fountains in numbers running as high as 120 in a single installation. For attachment to municipal supply; cork-jacketed, have 15½ coils ½-in. brass pipe; will supply 150 persons. Many types for use with bubbler or glass with both or either.

Write for catalogue covering our entire line.

**Manufacturing Equipment & Engineering Co.**
**136 Federal Street, Boston, Mass.**
**Works and Mail Address: Framingham, Mass.**

**RELIABLE**
**Vacuum Heating Equipment**

***The Universal Trio—***

**Air-Line**
**Return-Line**
**Vacu-Vapor**

cover every steam heating requirement.

Before deciding upon the equipment for your next heating contract, write for literature and full information concerning the complete, up-to-date RELIABLE Line.

**THE BISHOP-BABCOCK-BECKER CO.**
**Factories and General Offices, CLEVELAND, OHIO**
New York Chicago Cincinnati St. Louis
St. Paul San Francisco Atlanta Dallas
Milwaukee Denver Boston Philadelphia

**For Wells 300 feet Deep**

System No. 2020 insures a plentiful supply of water from wells up to 300 feet deep. Should the engine power fail, hand operation is possible.

DEMING

**Hydro-Pneumatic Water Systems**

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**BRINGING ARMSTRONG TOOLS TO YOU**

THIS Pipe Cutter is not only the strongest and most rapid working, but it is the cheapest, by reason of its taking a larger range of pipe than any pipe cutter known.

CATALOG SENT UPON REQUEST

Model A Quick Acting

**THE ARMSTRONG MFG. CO.**

284 Knowlton Street Bridgeport, Conn.


# Indiana

### Indianapolis and Vicinity.

Claude McElwaine, of the plumbing and heating firm of Kirkhoff Bros. & McElwaine, at 11 North New Jersey Street, Indianapolis, in a recent interview in one of the Indianapolis newspapers, called attention to the many problems confronting householders who own heating plants which must undergo correction and adjustment to fit them for next winter's use. Shortage of labor, scarcity of materials and irregularity in transportation are factors which are likely to cause a serious delay and later discomfort to the home owners, unless they act at once, he said. "Any further delay in getting heating plants, which were put to a hard strain last winter and are in need of considerable attention in the way of repairs, in condition for the coming winter's requirements, will be a hazard that is almost certain to become serious," he continued. "The average plumbing and heating contractor cannot tell today what he will be able to do in the matter of repairing a heating plant, unless he has ample stocks on hand for the work. The reason is that there is a scarcity of material. In addition to the scarcity of material is the labor shortage, because expert workmen are being drafted into war industries as rapidly as possible. A contractor having to order any material for a private heating plant cannot tell how long a time will be required to obtain that material, as government work is given priority over domestic work. Then, too, all the large industrial concerns are preparing to heat their factories and they will be given priority over the home owners. When one considers these things it is best to get busy."

### Other Cities in the State.

The Bowlinger Heating & Plumbing Co., of Sullivan, has received the contract for the installation of a new heating plant in a grade school at Bedford.

The Hoosier Construction Co., of Connersville, will install the plumbing and heating in the new $100,000 addition to the Indiana Lamp Co.'s factory at that place.

The contract for the installation of the plumbing and heating in a new garage and flat building, at Shelbyville, has been awarded to Edward Fisher, of that place. The building is being erected for the Billman Implement Co.

The P. B. Arnold Co., of 213 East Main Street, Fort Wayne, has received the contract to install the plumbing in the new $8,000 addition to J. G. Thieme's store building on Calhoun Street.

H. H. Highlands, of 710 Washington Street, Gary, has been awarded the contract for the installation of a heating system in the new $35,000 store and office building that is to be erected there for Joseph Tittle.

Burke Bros., of 521 Washington Street, Gary, were the successful bidders for the plumbing and steam heating contracts on the new $8,000 residence that is to be erected on Connecticut Street, for Patrick Finnerty, 932 Broadway.

The Martin Plumbing Co., of 710 Buchanan Street, Fort Wayne, has received the contract for the installation of the plumbing and heating systems in the new addition to the high school there.

G. H. Newman & Co., of 511 Upper Fourth Street, Evansville, were the successful bidders for the heating contract on the new $17,000 library building that is to be erected at Rockport. The plumbing contract was awarded to the Rockport Water & Electric Co.

Henry Heuck, of Gary, has received the contract for the installation of the plumbing systems in the new freight

house that is to be erected there soon for the Pennsylvania Railroad Co. The new building will be located at Adams and Twenty-first Streets.

E. Ellerbusch, of 2108 Virginia Avenue, Evansville, has obtained the contract for the installation of the plumbing system in the new $8,000 bungalow that is to be erected at Mary and Franklin Streets, for Edward Holtz, of that city.

The Central Heating plant at Anderson, which was bought recently by the B. W. Bissell Co., composed of George Alexander, of Logansport; B. W. Bissell, of Indianapolis, and A. J. Stahl, of Laporte, is being remodeled and, when completed, will be one of the most efficient plants in this section of the country. A large force of men is employed on the work and B. W. Bissell, manager of the company, announces that the work will be finished by September 1st. Work on the re-insulating of defective steam mains is to be started in two weeks, he said, and every meter in the city is to be tested in the new meter testing department recently erected at the plant. All valves will be replaced and put in good condition for the winter.

Carl O. Mertz, of Lafayette, for many years associated with the C. H. Ankeny Co., jewelers, has joined forces with Abner Werkhoff, and William F. Mertz in the plumbing and heating business at Lafayette, the new firm having incorporated under the name of the Werkhoff-Mertz Co. The concern has its office and shop at 426 Columbia Street, and the new member, as secretary and treasurer, will be in charge of the office. Mr. Werkhoff is president of the company and William F. Mertz is vice-president.

The Orth Plumbing Co., of Lafayette, has been awarded the contract for installing heating, ventilating and plumbing systems in the Clark's Hill School at that place. The plans and specifications for the work were prepared by Nicol & Dietz. The contract price is $13,400, and the work is to be completed by September 1st.

## Pennsylvania

**Pittsburgh and Vicinity.**

The prospect of a coal and gas shortage in the fall and winter, which has been forecasted by Government and other officials, has resulted in an unusual demand at this time of the year for special heating appliances and for alterations in hundreds of heating systems. A big drive has been commenced here to get as much of this business completed during the summer and early fall months as possible in anticipation of a great shortage of men and supplies later in the year. A campaign of education is being conducted through various mediums in which everybody is warned that the only way to enter the winter with assurances of comfort is to have boilers or furnaces equipped so that either gas or coal may be used. It is stated that there will be a rush this fall for appliances of this kind, and doubt exists as to whether these demands can be filled then. Owners of homes and renters are advised to see that the proper appliances are installed now when the difficulties are not insurmountable.

The great rivalry that has sprung up among the various residence districts adjacent to Neville Island, where the new Government ordnance plant is to be erected indicates a season of prosperity for contractors, builders and equipment lines to which the trades are looking forward with eagerness. Civic organizations have been formed in several boroughs to conduct campaigns for bringing the new buildings and residents to their districts. The citizens of West View


# Building Bigger Business

**New Business from Old Buildings**

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Dig out your 1917 Ledger and make a list of the homes in which you repaired tank heaters during the year. Almost all of these homes can afford an Automatic Water Heater—and it's a safe bet that you can sell them a

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You're as good and maybe better than the average salesman. You can't tell until you try. Do not wait for the business to come to you. You can make more money by selling and installing one "Pittsburgh" than you can on 10 odd repair jobs.

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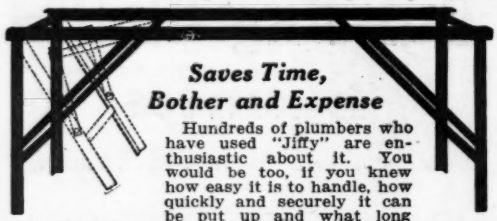

***Saves Time, Bother and Expense***

Hundreds of plumbers who have used "Jiffy" are enthusiastic about it. You would be too, if you knew how easy it is to handle, how quickly and securely it can be put up and what long years of service it will give. Made of heavy angle iron. Braces of heavy steel, coated with durable black paint. It's a money maker for you. Go see the "Jiffy" at your jobber.

**THE FORD DONLEY CO., 1940 East 117th St., Cleveland, Ohio**

**The AMERICAN Bent Tube Sink Trap**

WI[illegible] CAST FEMALE IRON IPE OUTLET

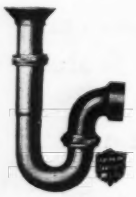

Fig. 2386

This trap can be furnished in either 1¼ inch or 1½ inch size.

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**ABINGDON, ILL.**

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**FINE N. P. BRASS SPECIALTIES**

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**Our Booklet on modulated and Vapor heating is full of instructive matter. It also illustrates and describes our specialties. Send for your copy.**

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**American Beauty Line**
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**Pure White Bathroom Fixtures**

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No unsightly screws on face of Post Brackets—a new and novel feature.

Post Brackets only 2½ in. Smallest ever made.
*Order Sample*

The up-to-date, better kind.

Order from your jobber.

**Bay Ridge Specialty Company, Inc.**
**Trenton, N. J.**

borough recently held a mass meeting to discuss plans for the housing of hundreds of workingmen and their families, who will be employed at the big plant. A committee told the gathering of the progress made in bringing the building to the borough.

The Builders' Exchange reports that during the month of June, thrift and war savings stamps amounting to $1,566.42 were sold, making a total to date of $2,406.11.

Much of the labor and material for the construction of 85 new houses in Charleston, W. Va., under the direction of government officials, will be supplied from the Pittsburgh district. Local concerns have submitted bids and estimates at the invitation of the Bureau of Industrial Housing of the Department of Labor, and it is understood that the awards will be known this week. This is one of the first projects under the general housing program to be gotten under way.

Separate bids are being received for the general work, plumbing, heating and ventilating work for remodeling the building known as the Guy Home, for public school purposes, at Oakdale. F. E. Lasher, Oakdale, has the plans and specifications. Boyd & Stewart, People's Bank Building, are the architects.

Bids are being received for the remodeling of the Colonial Hotel Building, corner Federal Street and Penn Avenue; separate bids for plumbing and heating.

W. N. Sauer Co. has the plumbing, and Bartley-O'Neil Co. has the heating contract for an addition to a large building on Thomas Boulevard, near Braddock Avenue, to cost about $30,000.

W. N. Foley has the contract for remodeling the plumbing and heating systems in a bank building at Washington, Pa.

Bids are being taken by Architect W. A. Thomas, Magee Building, for a commercial garage, approximate cost $45,000, for Harry Lippoch. It will be situated at Dinwiddle and Reed Streets. Plumbing and ventilating work will be separate.

Separate bids are being received by Architect John H. Phillips, McKees Rock, for the plumbing, heating and electric wiring for a four-room addition to the Norwood school building, McCoy Road, Stowe Township.

Bids will be taken this week on the construction of a Moose Temple at Woodlawn, the big steel town operated by Jones & Laughlin Co., near this city. Carlisle & Sharrar are the architects in charge. The work is to cost about $40,000.

Moss & Blakeley Co., has the contract for plumbing, gasfitting, sewering, etc., in a new residence duplex on Gross Street, East End.

The Reliance Heating Co. has the contract for work in a new residence building on Winebiddle Avenue, East End.

The C. F. Higgins Co. has the contract for all the heating and ventilating work in a school building on Forward Avenue and Boundary Street, for St. Joachim's R. C. congregation. The contract amounts to $4,975.

Building operations in the city received somewhat of a boost during the last week through the issuing of permits for two new structures, the combined cost of which will exceed $325,000. One is for the new three-story brick and concrete stable and garage for the National Biscuit Co., and calls for an outlay of $125,000. The other is for a three-story concrete building for the Pittsburgh Screw & Bolt Co., on Peeble Avenue, near Island Avenue, and will mean an expenditure of about $200,000.

The Women's Hospital of Pittsburgh has taken out a building permit for alterations to the hospital building

to cost about $2,000, the principal part of which will consist of plumbing work.

**Philadelphia and Vicinity.**

H. T. Campbell, of Twenty-ninth and Stiles Streets, has been awarded the contract for the installation of modern plumbing in a new building on Twenty-second Street. The contract amounts to $850.

R. Hoben, Twenty-first Street and Delancey Place, has been awarded the contract for the installation of modern plumbing in the Bell Telephone Co.'s building at Germantown.

Chas. W. Kaeppler, of 1450 North Twenty-eighth Street, is installing new plumbing in some government buildings on Hog Island.

Harry F. Lodge, 247 North Twelfth Street, has secured the contract for the installation of plumbing and heating systems in two new buildings in the navy yard in Philadelphia.

James C. Brown, of Olney, will install modern plumbing in ten new houses in Fox Chase.

Wells & Newton, of this city, are installing the plumbing in several properties of the M. Clothier Estate.

William Oakes, of 160 South Tenth Street, has been awarded contracts for installing new heating systems in the Federal Reserve Bank and in the Western Saving Funds Society Building.

George Burlingame, of 3524 Haverford Avenue, is installing plumbing in two rows of houses.

**Wilkes-Barre and Vicinity.**

Robert H. Jones, of 216 Sambourne Street, Wilkes-Barre, one of the leading plumbing and heating contractors of this section, has just secured the following contracts: To install plumbing and heating systems at 370 East South Street; to install heating system in the Goldman residence on Sambourne Street; and to install plumbing and heating in the Innman Building.

Max Robin, of Hill Street, Wilkes-Barre, has secured the contract for the installation of a heating system in the Siegel residence on East Market Street.

Jas. H. Campbell, of South Washington Street, Wilkes-Barre, was the successful bidder for the plumbing on the new hospital, which is being built at Sheatown, near Nanticoke. He also secured the contract for plumbing on Donaldson High School.

John M. Parry, of South Main Street, Wilkes-Barre, has secured the contract for the installation of the heating system in the Keystone Motor Car Co.'s garage on South Washington Street.

The owners of the old Schooley Building at the corner of North Main and Union Streets, Wilkes-Barre, which has been entirely vacant for the past few years, have finally decided to have just the first floor store rooms remodeled. Their intentions at first were to remodel the entire building, fitting out modern apartments, but this idea was abandoned. Allen & Fell, of Hazel Street, Wilkes-Barre, have secured the plumbing and heating contract on the present changes.

Edgar Davis, of Dickson City, has secured an extra large plumbing contract on the public school building which is being built at that place.

Charles J. and Laurence Bauman, of Chas. J. Bauman & Co., of 144 Wood Street, who have been in business for the past eight years, are preparing to give up the business, at least for the duration of the war, as both members of the firm are to answer their country's call, leaving for camp the latter part of July. They are at present cleaning up their plumbing and heating contracts on the Wilson J. Smith residence on South Franklin Street and on the Academy Building, on East Market Street.


***Williams' "Vulcan" Chain Pipe Vises***
**are Powerful but not Destructive**

**Unbreakable**
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**Universally Attachable**

Three sizes, accommodating ⅛ to 8-inch pipe. Hold all records for service and the "Grand Prize" for excellence. Ask for Booklet.

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**There Are Very Few Pump Men**
**But That Sell House Pumps**

Many of them handle the MYERS because of their exceptional pumping qualities, their neatness of design and attractive appearance. The line is complete including Single and Double Acting Force and Lift Pumps, with Brass, Brass Lined or Polished Cylinders for inside or outside service.

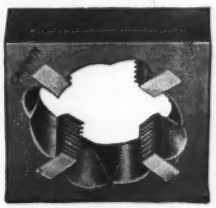
Circular showing many styles in actual colors, with prices to the trade.

**F. E. Myers & Bro.**
ASHLAND, OHIO

**"CROWN"**

**Guaranteed Tools and "Easy Cutting" Pipe Dies**

"CROWN DIES" are "SCIENTIFICALLY MANUFACTURED." The teeth are "MILLED" not merely tapped as the ordinary Die. This is why "CROWN DIES" are the "EASIEST CUTTING" Dies on the market. They are the "BEST" Dies made and in the long run the "BEST" are the "CHEAPEST." Therefore, when ordering dies specify and insist on "CROWN DIES."



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***Mfrs. of "Crown" Pipe Cutters, Chain Post Pipe Vises. Stocks, Etc.***

**FOR SANITARY REASONS**
***WHEN***
**Building Bigger Business**
***Install*** **"SANIDOME"**
**Bibbs, Bath and Basin Cocks**
**Your Customer Will Pay More and Make More Profit For You**
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**Suction Pumps *and* Complete Water Supply Systems**

pumping capacities 120 to 1,000 gallons per hour. Efficient Deep Well Pumps with Hyatt Roller Bearings and silent chain drive, pumping capacities 150 to 2,000 gallons per hour. **Write for bulletins and price sheets.**

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DAYTON, OHIO New York, N. Y., 30 E. 42d St.

**"Femco" Fittings**

*Goods that make good* — *Quality first, last and always*

**We make a complete line of Plumbers' Brass Supplies for all requirements. Write for prices.**

**Frost Manufacturing Co. Kenosha, Wis.**

**Time Is Money**

It takes time, and a lot of it, to stop and figure out the resale price of each article you handle. Even then there is a chance of making errors so your profits will not come out right.

**The Bradford Price Book**

does this work for you quickly and accurately. A glance tells you the List, Net and Resale figures. Size of pages 5 x 9 inches. Bound in flexible, loose-leaf, 4-ring binder.

The price is only $12, which is very soon saved in time alone. Send your check for that amount and the book will be sent on 15 days' trial. If not satisfactory you may return it and your money will be refunded.

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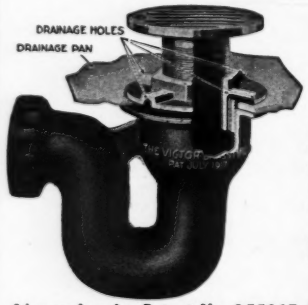


**Double Drainage Shower Traps and Drains**

*Feature No. 2*

Holes and slots in concrete construction are unnecessary. These are required in installing traps of other makes.

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**The Victor Brass Mfg. Co.**
*Licensed under Patent No. 855017* CLEVELAND OHIO

**Watch This Space!**
**BARGAINS!**

100 1¼" Penberthy Regrinding Globe Valves.
60 ¾" Walworth Gate Valves.
1", 1¼", 1½" and 2" Ex. Heavy P. & C. Checks.
⅜" Galv. Drop Ells.
1" Galv. 45° Street Ells.
1½x1¼", 1¼x1", 1x¾", ¾x½" Galv. Mall. Ells. All new.
In what are you interested? What quantity?
1000 lbs. ⅜" Second Hand Caps, 10c lb.

**GWILLIAM SUPPLY CO.**
**615 Christian Street Philadelphia, Pa.**

# Massachusetts

**Boston and Vicinity.**

Notices have been sent out this week announcing the annual mid-year meeting of the Massachusetts State Association of Master Plumbers. The gathering, which is always so arranged as to combine business with pleasure, will be held on August 21st at Breezy Point, Webster. This is an ideal summer resort in Worcester county, on the shore of a beautiful lake with a long name. There are only a few people living who can place the twenty-six letters which go to make up the name of the lake in their proper sequence without the aid of an atlas. However the fact that the outing is to be held at this unspellable place will not detract from the attendance. President Daniel F. Carroll has named Daniel F. Loan, president of the Worcester association; J. Preston Perham, of Boston, former state president; and Reuben E. Dockham, of Salem, as a committee of arrangements, and they are actively engaged in making plans for the meeting. Webster is centrally located within easy automobiling distance of nearly all sections of the state, and with good weather the prospects are for a big time.

State Secretary James H. Trow, of Salem, is engaged in sending out to the five hundred odd members of the association certificates of membership, which the executive board recently voted to furnish. These are handsomely printed cards, large enough for framing, with an etching of the state house dome and the words, "Member of the Massachusetts State Association of Master Plumbers." New certificates will be issued each year and it is thought that most of the members will want to keep them conspicuously displayed at their place of business.

Because of war conditions the mid-summer meeting and outing of the New England Association of Plumbing Inspectors, which had been planned to be held on one of the many beautiful islands in Portland, Me., harbor, has been called off. Andrew J. Burnett, of Melrose, chairman of the ways and means committee, under whose direction the mid-summer meetings usually are held, conferred this week with other members of his committee and with leading members of the association in Boston and vicinity, and found it practically the unanimous opinion that the outing should be dispensed with. Such business matters as are awaiting action will be held over until the regular annual meeting in Boston in January. The principal matter to come up was the election of a president to succeed the late George C. Conron, of Stamford, Conn.

M. A. Dame & Son, of Lynn, has just been awarded a contract for installing plumbing and heating fixtures in 25 buildings at the United States naval training camp at Hingham. The work will require an expenditure of about $100,000. The company also is working on a contract for installing plumbing and heating fixtures and equipment for the new Elk's Reconstruction Hospital in Roxbury.

The town of Framingham has advertised for bids for a steam heating plant for the Washington school.

James P. Landers, of 263 Bowdoin Street, Dorchester, was the lowest bidder for plumbing in the Austin school at East Boston and probably will be given the contract.

At least ten thousand old boilers with concealed cracks are in use in Massachusetts, George A. Luck, chairman of the board of boiler rules of the boiler inspection department, declared in testimony given before a legislative committee at Boston recently. This should make the state a good field for the Trade Extension Campaign for remodeling heating systems in old buildings.

### Other Cities in the State.

The town of Athol is to spend $5,000 for the installation of a new heating and ventilating system in the Riverbend Street grammar school building. A special town meeting was called recently to authorize the appropriations, and the contract will be placed soon.

Proposals have been received by the school board of Gloucester for extensive changes and additions to the heating system in the Gloucester high school building. The work is to be completed before the opening of the fall term in September.

The Standard Plumbing and Heating Co., conducted by Nathan Simonoff and Harry S. Sherman, has opened a place of business at 11 Ferry Street, Springfield.

"How shall I relieve the depression in building operations?" This was the big question in the mind of C. L. Merlini, a plumbing contractor of North Adams. Finally the answer came to him. He had heard a good deal about merchant plumbers and about carrying side lines. "What's the matter with handling groceries as a side line?" thought Merlini. He could see nothing unwise or

C. L. Merlini's Combination Establishment at North Adams, Mass.

unprofitable in the proposition, so he went ahead and started a grocery store in his shop, while the other half of it was to be devoted to his plumbing business. He also installed a soda fountain. His wife operates the grocery store, while he gives most of his time to the plumbing business. The joint plumbing and grocery business has now been in running order for over two months. Mr. Merlini points out that the soda fountain has yielded him a profit that pays the rent and then some. The grocery business is being conducted on a strictly cash basis, which gives him ready money with which to meet his current expenses.

Geo. Hayes, of Ipswich, has just secured the contract for the installation of plumbing and heating systems in a sixteen-room house at Rowley, now being built by Miss Billings, who is very prominent in Red Cross work.

Geo. F. Manning, of Holyoke, has secured the contracts for the installing of plumbing and heating systems in 26 bungalows, now being built at Woronoco by the Woronoco Mills for its employes.

Wm. H. Skilling, of Holyoke, has recently added a line of automobile sundries to his plumbing business.

Geo. G. Engel, of Athol, will install plumbing and lighting systems in the new Starrett Memorial M. E. Church, which, when completed, will be one of the finest churches in town.


PORTABLE SHOWERS
SPECIAL PRICES IN DOZEN LOTS
SHOWERS OF ALL DESCRIPTIONS
GOETZ BRASS COMPANY
630 N. FRANKLIN ST. CHICAGO, ILLINOIS

Happy Is the Man Who Uses the Martin Portable Vise Stand and Pipe Bender
because he knows he can carry it anywhere. All he has to do is to insert the legs and go to work.
Stands securely anywhere. Equipped with chain or hinged vise. Bender has capacity of ⅛ inch to ¾ inch. Vise capacity, 2 inches. (Patented Jan. 26, 1915.)
Write to-day for special 10-day free trial offer.
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LOOK FOR NATIONAL THE NAME
¶ The trademark is the surest guarantee of quality, for a trademark on an inferior product would be as a danger signal—a warning to the consumer to avoid it.
¶ The name "NATIONAL" rolled in raised letters on every length is the trademark—the guarantee of the quality of "NATIONAL" Pipe.
¶ Read about the "NATIONAL" trademark in next week's issue.
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Only Flux approved by the National Board of Underwriters.
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Sample Free
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K-K Cleans Closet Bowls
"The Sanitary Way"
Shake a little into bowl, let remain a few minutes, then flush. Leaves bowl and trap free from stains and odors. K-K is scientifically prepared for this purpose only—not a general cleaner.
Keep a supply on hand—your trade wants it.
The Chamberlain Company
Manufacturing Chemists - - - - - Pittsburgh,
Use "Desolvo" for Cleaning Clogged Pipes

No. 2A Thermostat
ROBERTSHAW MFG. CO. YOUNGWOOD, PA.
The standard for 30-40 gal. boilers, and single coil heaters or equivalent. Has ⅜-in. gas openings.
We Make All Sizes

UNCLE SAM has tested our
STANDARD PORTABLE VISE BENCH AND PIPE BENDER
and same has proved satisfactory. HE is now one of the THOUSANDS of satisfied users we have. Drop us a line and we will send you full particulars, or ask your jobber for same.
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Manufacturers of Boiler Stands, Vent Caps, Cesspools, Sink Brackets, Laundry Tub Legs, etc.

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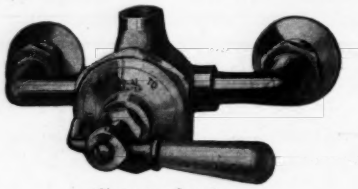
**Mixing Valve for Showers**

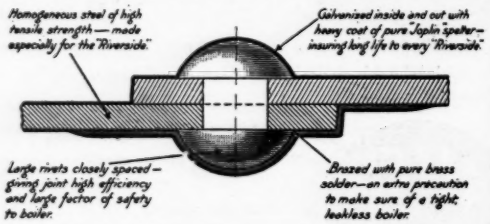
**Simple in Operation—Few Working Parts.**



*Write for Catalogue.*

**THE ROYAL BRASS MFG. CO. CLEVELAND, OHIO**

**The "Riverside" Riveted and Brazed Seam**


Homogeneous steel of high tensile strength—made especially for the "Riverside."
Galvanized inside and out with heavy coat of pure Joplin spelter—insuring long life to every "Riverside."
Large rivets closely spaced—giving joint high efficiency and large factor of safety to boiler.
Brazed with pure brass solder—an extra precaution to make sure of a tight, leakless boiler.

The Strongest and Tightest Seam on any Range Boiler

**Riverside Boiler Works, Inc.**

**Cambridgeport, Mass.**

MARVEL

**"2 in 1"**

**Adjustable Shower Trap**

embodies the double drainage principle.

Used by most discriminating plumbers. The trap you will prefer after giving it a trial.

Cast iron, black or galvanized. Tapped 2-in. iron pipe.

We make a complete line of the famous MARVEL Traps.

Order from your jobber.

Made by

**DETROIT MARVEL BRASS MANUFACTURING CO.**

**326-332 Rivard Street, Detroit, M**

**Size of Flow and Return Steam Mains**

**Second Edition By JOHN K. ALLEN**

***A Useful and Instructive Book***

Contains contributions from thirty heating engineers of different cities in the United States.

Also a number of handy tables and much practical advice.

Bound in boards. 4¼ x 6¼ inches.

104 pages; postpaid—Fifty Cents.

**DOMESTIC ENGINEERING**

**407 S. Dearborn St. - - - Chicago, Illinois**

# Maine

The Executive Committee of the Maine State Association of Master Plumbers held its regular monthly meeting at Lewiston on Tuesday, July 16th, at which it was decided that the Association would have no outing this year. Members of the Executive Committee expressed the hope that the various local associations would invest in War Savings Stamps an amount of money equal to that which they would have spent on the annual outing.

Frank A. Chase, a master plumber of Auburn, who has been confined to his home by illness for more than five weeks, is reported to be well on the road to recovery.

Rufus P. Parker, of Auburn, has just returned from Lynn, Mass., where he spent his vacation with his brother.

Jos. G. Hotte & Son, of Biddeford, have secured the contract for the installation of plumbing and heating systems in Dr. A. C. Maynard's new residence. The contract amounts to $1,750.

John J. Hartley, president of the Master Plumbers' Association of Lewiston, is just recovering from injuries received in a fall from a twenty-foot ladder, which he sustained shortly after his return from the National Convention at St. Louis.

# California

**San Francisco and Vicinity.**

While the general run of building continues to be considerably restricted by the Government and war necessities and by the disposition of many to put off improvements and enlargements until normal times return, the total amount of construction under way is, on the whole, very large. In the larger cities of the State and Coast, the erection of apartments of moderate cost and of residences for war workers is becoming an important feature of the building trades, while in the smaller towns and in country districts a considerable amount of school work is under way. In the country districts too, the erection of new hotels of moderate size has called for a large amount of plumbing. The difficulty of securing supplies continues, but plumbers with actual contracts have so far managed to get the goods actually needed.

Smith O'Brien is asking for bids for the construction of a three-story and basement class "C" building to be erected on Front and California Streets. The estimated cost of the construction is $27,000.

A three-story basement reinforced concrete building will be erected by the Hind Estate Co., on Market and Seventh Streets. The new building will be used for stores and offices.

Bids will be called for in a few days, by Hannah McAlister and W. J. Bush, for the plumbing and electric work on a new five-story apartment building at Post and Taylor Streets.

**Other Cities in the State.**

Plans are being prepared in the Draughting Department of the Craig Shipbuilding Co. for the construction of a 150-room hotel building to be erected at Long Beach, by Chas. F. Van de Water and John F. Craig. The estimated cost of the building is $70,000.

The Pacific Telephone & Telegraph Co. is planning to erect a new 6- story, class "A" building on Franklin and Fifteenth Streets, Oakland. J. M. Dougan & Co. are the general contractors. The building is to cost approximately $270,000.

# Washington

Sites for three hundred homes for workmen at the Naval Station Puget Sound Navy Yard, Bremerton, were recently selected by the Government Housing Committee. The Government plans to spend $1,500,000 at once in the project. Architect A. H. Alberton, Seattle, who has been commissioned to prepare plans, states that drawings are now being prepared, which will be completed shortly, when bids will be called. Plans now under way call for a hotel of 350 rooms, three apartments houses and several hundred homes of about fifteen different types, ranging in size from three to six rooms.

Rhodes Investment Co., Tacoma, will build an apartment house on the corner of Market and Ninth Streets, that will contain fifty suites. Building will be six stories, with frontage of 62½ feet and four stories with frontage of 100 feet. Suites will be two and three rooms, with every modern convenience.

# Oklahoma

B. W. Kramp, of 210 Broadway, Haskell, will install the plumbing and water supply systems in the new $10,000 home of Jackson Culvert, also the plumbing system in the residence of C. Bashara, on South Broadway.

The Shultz Plumbing Co., of 104 East Second Street, Sand Springs, has been awarded the contract to install the plumbing and heating systems in the residence of J. H. Seavers, at 514 Washington Street. Construction cost $10,000. The company will also install plumbing and heating systems in the residence of W. A. Wilson, which is being built at a cost of $11,000, at 520 Lincoln Street.

McNeese & Davis, of 213 West Seventh Street, Okmulgee, have moved their plumbing business to larger quarters on Main Street.

The Chas. Ramstad Co., of 216 West Seventh Street, Okmulgee, has been awarded the contract to install plumbing systems in ten new residences to be erected on East Ninth Street. The concern is also installing the plumbing in the new $7,000 store building of the Dy-O-La Cleaning Works at Muskogee Avenue and Main Street.

## THE DAY BOOK OF THE BON TON DE LUX PLUMBING & HEATING CO.

(Continued from Page 130.)

terial, whereas she had been to the dentist's own office or shop, if you will, a score of times, and even at that, doing work in his own office, he had been compelled to send his customer to other offices for work that he could not do, and yet he expected a plumber do a dozen or more jobs without having to send back to the base for supplies.

**July 25, 1918.**

Well, that dentist saw the point, and to square himself he gave her the check and the letter of apology, and tonight we're going down to the Elk's Club and have dinner at his expense, because his wife is out of town and he says it was worth it to be shown up.

**July 26, 1918.**

Some dinner we had last night, and the dentist is going to build a new house, and it looks like me and Hank will have a nice little job of plumbing and heating without any cut-throat competition.

(To be Continued.)

The Hotstream WATER HEATER
Kerosene Water Heater
Also made with double copper coil
Here is a REAL Kerosene heater.
Heats as HOT and FAST as a gas heater.
Patented wickless burner generates its own gas, and throws a clean, powerful, odorless flame.
Will run 10 hours on a gallon.
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The Hotstream Heater Co.
"Makers of Heaters That Heat"
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Eagle All Lead Roof Flange
LEAD PIPE Length, 6 inches Diameter, 4½ inches
SIZE OF APRON 15 inches Square
Made in Angles, 45 deg., 22½ deg. and Straight.
No Caulking To Be Done
Joints Lead-burned — No Solder Used
Flexible Adjustable Economical
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Manufactured only by
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735 South Washtenaw Ave. CHICAGO
If Your JOBBER Cannot Supply You With Our Goods, Send Your Orders To Us Direct

NIEDECKEN MIXER
For Shower Lavatory Bath Sink Etc.
Write for Bulletin D-10-X
HOFFMANN & BILLINGS MFG. CO.
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**Floor and Ceiling Plates**

Substantially made of heavy stamped steel. May be cut to fit any conditions. Adjustable. Unbreakable.

Hinge and catch new in construction and invisible when plate is closed.

Nickeled on copper. Highly polished. Sizes, ⅛-in. to 3-in.

Write for prices and details.

**W. A. RUSSELL & COMPANY**
63 W. 37th St., New York City

**OVERTON**
**Plumbers' Adjustable Flashing**

**Hugs any Pipe—Water Tight**

**Fits any Angle — Self Adjusting**

**No turning or twisting necessary**

Made of high grade galvanized and copper materials.

Your jobber has them in stock.

Write for illustrated circular

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DULUTH, MINN.

**Just Mention Wolverine Fittings, For Old or New Work and**

**Building Bigger Business**

**will be a pleasure.**

**WOLVERINE BRASS WORKS**
Grand Rapids, Mich., San Francisco, Calif.

**TRY BLUE SEAL**
**AT OUR EXPENSE**

This liberal offer is for plumbers who have never used BLUE SEAL. It gives an opportunity to try at our expense the original Money Back Drain Pipe Solvent.

Cut out this advertisement, mail it direct to us with your own address—and your jobber's. We will then send you, transportation charges prepaid, six one dollar cans (2 lbs.) BLUE SEAL

**DRAIN PIPE SOLVENT**

Use these six cans according to directions to clear waste and drain pipe stoppages. If the Solvent does all we claim for it you are to send us $3.00 (special price for plumbers) within ninety days. If not the trial costs you nothing.

10,000 plumbers now use Blue Seal. Over 300 jobbers stock, sell and recommend it. If you haven't used it, this is your opportunity

BLUE SEAL CHEMICAL CO.
417 E. 10th St. New York


## FUEL SAVING HEATING SYSTEMS

(Continued from Page 119.)

erator made the system circulate anyhow. It is easy to get a wrong understanding of a system. Neither of these fitters are getting good or economical service from their work. A well piped job of accelerated heating should circulate perfectly without the use of the accelerator, as

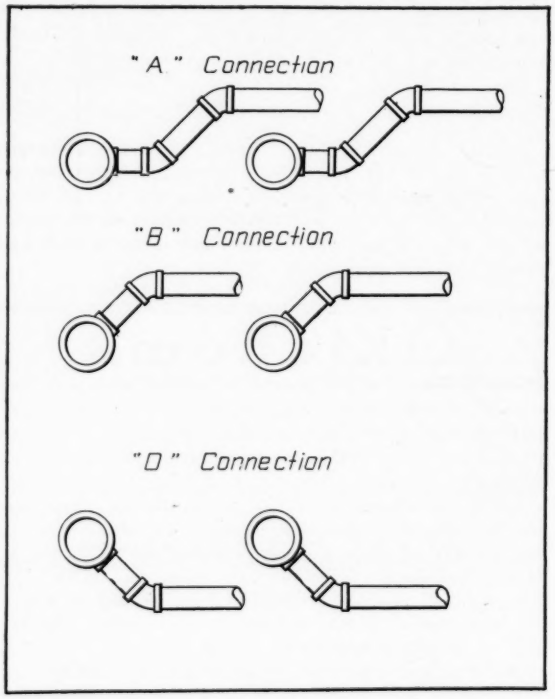



Fig. 4.

this device will show the best results when used on a good job of piping. The circulation without the accelerator will be no more rapid than in any job of open tank heating, and the water in the system will boil at atmospheric pressure—212 degrees. If the job is not piped

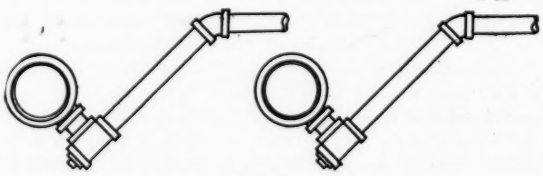


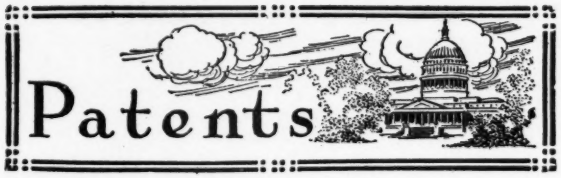
Fig. 5.

properly, the benefits to be derived from using the accelerator are reduced or lost altogether. Added friction, robbery of circulation, short circulating and air pockets in the piping system, all reduce efficiency.

---

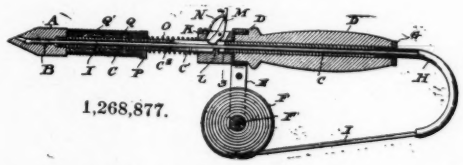
Plans have been accepted for the proposed $125,000 addition to the Arizona State Capitol at Phoenix, Ariz. Bills will be called for at once for the construction of the connecting wing, which will be erected first.

The Charlotte Plumbing Co., of Charlotte, N. C., was recently awarded the contract to install the plumbing and heating in a new apartment building. The company is also engaged in the installation of septic tanks at several city and suburban residences.




**Plumbing Department.**

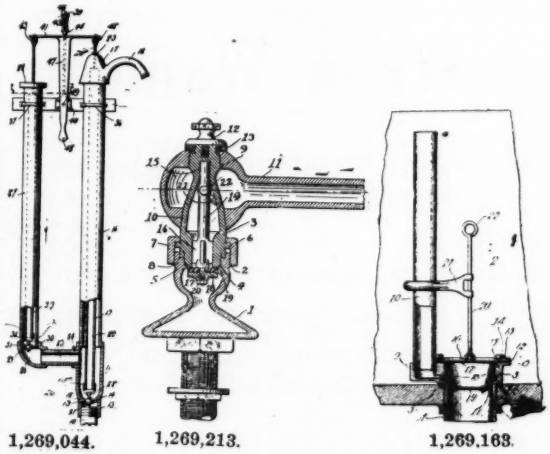
1,268,877. Self feeding soldering iron. Harry A. Orme, Washington, D. C. In a device of the kind described, the combination with a soldering iron, a tube slotted on opposite sides, a spring coiled about the tube, a collar slidable on the tube and engaged by said spring, a fixed dog carried by the collar and entering one slot of the tube, a pivoted



1,268,877.

dog carried by the collar and entering the opposite slot, the material fed passing between said dogs, and a spring carried by the collar and bearing on the pivoted dog.

1,269,044. Hydrant. John Bonderson, Emerson, Nebr. A hydrant having a straight body with an inlet valve at one end and an outlet at the opposite end, a pipe section parallel to said body and opening thereinto a short distance above the inlet valve, a drain valve in said pipe section, manually operative rocking means connected to said valves for opening either valve without actuating the other valve, and resilient means for normally holding both valves in closed position and also closing the open valve upon release of the rocking means.



1,269,044. 1,269,213. 1,269,163.

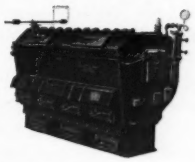
1,269,163. Flush tank valve. William A. Danielsen, Palatine, Ill. A flush tank valve comprising an outlet casing having a seat provided with an upwardly extended annular flange and an internally threaded rim on said flange, an elastic annular member seated on said flange and having a depending flap, a peripherally threaded ring for securing said elastic member within the said rim, a closure consisting of a hollow head in the form of an inverted truncated cone provided with an air opening on the underside thereof, and a cage attached to said ring and adapted to guide said closure with reference to said seat.

1,269,213. Swing spout compression faucet. James T.

**Economical Heating—A sufficient reason why you should install**

**PIERCE** DOWN DRAFT HEATING BOILERS

For Steam, Water, Vapor, Vacuum, Heating



There are other reasons, too:

1. Magazine Feed.
2. Down Draft.
3. Smoke Consuming.
4. 25% Fuel Expense Saved.
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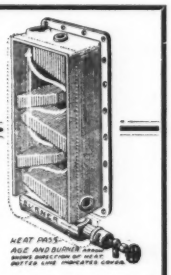
**Sharp's Cleanout Water Heater is a New Business Getter**



With the Sharp's you can establish a profitable business replacing coil heaters that clog with lime. Wherever hard water causes trouble with coil heaters, the Sharp's gets new business.

No coils or small passages to clog. Thoroughly cleanable and economical in fuel. No heat waste.

Write for prices and detailed information as to how you can build business with Sharp's heater.

**General Manufacturing Co.**

Heater Dept. 67 Nineteenth St., Wheeling, W. Va.

*Use Only the*
**ORIGINAL**
**Double Drainage Drains**

The Standard of America

Look for "JOSAM" on Every Drain

*Made by*
**JOSAM MFG. CO.**
29 S. Fourth St. St. Louis, Mo.
EASTERN BRANCH: 7 W. 45th St., NEW YORK
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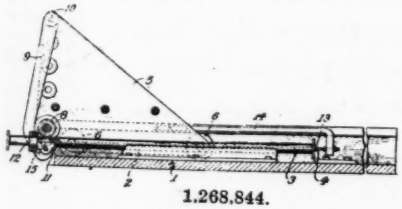
FOR lasting quality and true capacity use "KOVEN" Pure Iron, Double Row Riveted, Galvanized Range Boilers, or NACO Galvanized Range Boilers made of open hearth steel. These boilers may be bought of jobbers everywhere.

**L. O. KOVEN & BRO.**
**50 CLIFF STREET** NEW YORK

Power, Springfield, Ill. In a swing spout faucet, a hollow main body, an internally recessed stationary core having its lower portion adapted to fit into the main body and provided with a valve seat on the lower end, a valve stem carried in the internal recess in the core and shiftable longitudinally therein, a valve on the lower end of the stem adapted to seat on the valve seat on the lower end of the core, cam slots through the walls of the core, a cross pin loosely fitted in the valve stem and having its ends protruding through the cam slots in the core, the core provided with external spaced apart tapered ground joint surfaces, a spout member having a hollow spherical base provided with internal spaced apart tapered ground joint surfaces positioned to register with the external ground joint surfaces on the core, and said spout base having oppositely positioned pairs of parallel ribs on its internal walls between the ribs of which pairs the protruding ends of the cross pin of the valve stem may be entered, substantially as described.

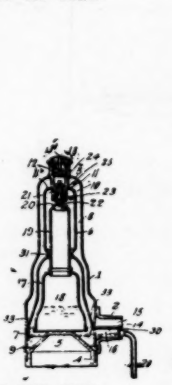


1.268.844.

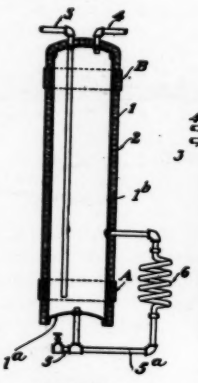
1,268,844. Pipe bending machine. Emil F. Hollinger, Jersey City, N. J., assignor to the M. W. Kellogg Company, New York, N. Y., a Corporation of New Jersey. In a machine of the kind described, a pipe rack, a carriage adapted to move along said rack, a roller on said carriage adapted to move in contact with a pipe disposed in said rack, an arm pivotally connected to said carriage, means for securing the arm at its free end to said pipe, a tension member secured at one end to said carriage and adapted to enter said pipe, and a head secured to said tension member and held in position under the roller, all for the purpose and substantially as described.

**Heating Department**

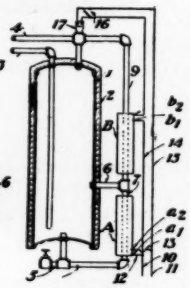
1,268,883. Air valve. William A. Russell, Yonkers, N. Y. In an air valve for radiators, the combination with a casing and means for securing it to a radiator, of a plug having an air escape passage, a valve for closing the passage, a valve nipple carried by the valve having a recess, and a check valve in the air escape passage and having a stem entering the recess of the valve nipple for alining it to its seat.



1.268, 883.

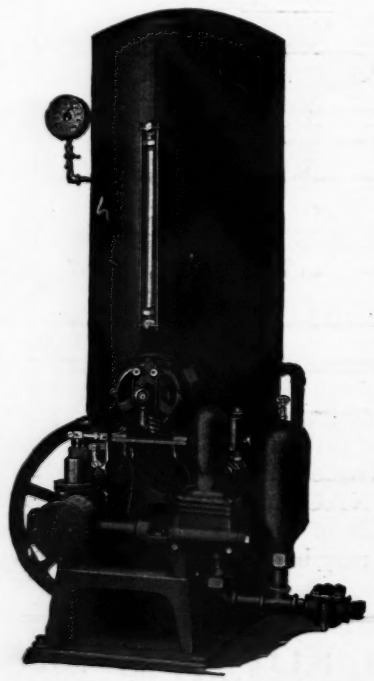


1,269,052.



1,269,053.

1,269,052. Electric heater element. Farley Granger Clark, Paul Ackerman, and Charles Ernest Cansfield,

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Hot or Cold Water anywhere in the house at the turn of the faucet.

Can be installed in Cities using same Electric Current already in house for pumping soft rain water or water from individual well or spring.

Or on the Farm for same purpose, using Electric Current from The Farm Lighting System.

**THE GEO. J. ROBERTS CO.**
**DAYTON, OHIO**

Toronto, Ontario, Canada, assignors to the Toronto Power Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario. An electric heater element comprising a frame consisting of a mechanically strong peripheral wall and side pieces of non-inflammable insulating material a non-inflammable insulation contained within the frame, a heat conducting bed of plastic material of high dielectric strength and comparatively high heat conductivity molded in the inner surface of the heat insulating material, and an electrical resistant embedded in the heat conducting bed.

1,269,053. Electrically heated tank or reservoir. Farley Granger Clark, Paul Ackerman, and Charles Ernest Cansfield, Toronto, Ontario, Canada, assignors to the Toronto Power Company Limited, Toronto, Ontario, Canada.

## UNITED STATES CIVIL SERVICE EXAMINATION FOR ASSISTANT SANITARY ENGINEER.

The United States Civil Service Commission announces an open competitive examination for assistant sanitary engineer, for men only. Vacancies in the Public Health Service, or other branches of the service requiring similar qualifications, at $1,600 a year, or higher or lower entrance salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer or promotion.

The duties of appointees will be to do public health work involving engineering problems, including treatment and prevention of stream pollution and making sanitary surveys, the treatment of water, sewage and industrial wastes, drainage and anti-malarial measures, and other similar subjects.

Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated, on a scale of 100: (1) Physical ability, 10; (2) education, training and experience, 90.

Under the second subject competitors will be rated upon the sworn statements in their applications, and upon corroborative evidence adduced by the commission.

Applicants must have graduated from a college or university of recognized standing, with instruction including full courses in sanitary engineering, and have had at least one post-graduate year of laboratory or field experience in some branch of sanitary engineering; or have had at least five years' competent experience in sanitary engineering; or a combination of education and experience as outlined above aggregating five years. Special credit will be given for actual experience in work of the kind described in the statement of duties.

Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Service Board, Custom House, Boston, Mass., New York, N. Y., New Orleans, La., Honolulu, Hawaii; postoffice, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Cal.; Old Custom House, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or the chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, excluding the county officers' certificate, but including the medical certificate, and must be filed with the Civil Service Commission, Washington, D. C., prior to the hour of closing business on August 27, 1918.


# *Automatic Temperature Control*

**is assured by the use of the TACO Heater. The temperature regulation of water is secured at any desired degree by a simple adjustment of the regulating valve.**

**The operation of the controlling valve is caused by the expansion and contraction of the brass pipes to which it is connected. This at all times assures an abundant supply of water, heated to the temperature at which the controlling valve has been set. It is automatic and can't fail.**

# TACO

## Automatic Water Heater

**incorporates an economic principle of heating water by steam which is based upon the construction of the highly efficient Madsen Heater with the addition of several new features that make it unexcelled in efficiency and unrivaled in its economy of fuel and steam by any other device made or designed for similar service.**

**No storage tank is required in connection with the TACO. Water is heated as drawn and steam is used only when and while hot water is needed.**

**Ask for details.**

## Thermal Appliance Company, Inc.

**420 WEST 27th STREET, NEW YORK CITY**

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**The charge for advertisements under this heading is $1.00 for 25 words or less, including heading and address; 4 cents each for additional words. To insure insertion, copy and remittance should reach us by Wednesday morning.**

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WANTED — TWO COMBINATION plumbers and steamfitters. Steady work for first class man. Seventy cents. Eight hours. P. O. Box 304, Lorain, O. 7-27

WANTED—TWO FIRST CLASS PLUMBERS and two combination plumber and steam fitters. No strikes or disorder. Steady work guaranteed at $6.50 per day. Tri-Cities Plbg. & Htg. Co., Florence, Ala. 7-13; 20; 27.

## For Sale.

FOR SALE—WE HAVE FOR SALE 3440 black oiled sheets No. 27—30 x 96 same as new. Make us an offer. F.O.B. Jacksonville, Fla., Box 210. 7-13; 20; 27.

FOR SALE — SECTIONAL STEAM heating boiler; U. S. Radiator Corporation's 8 section, 36 inch, 3,250 ft. rating, practically new. Also about 2,000 ft. used radiation; radiator valves; used 5 inch piping; new 3 inch galvanized piping. M. W. Townsend, Martinsville, O. 7-27; 8-3

## Miscellaneous.

PIPE COUPLINGS WANTED — ALL sizes, 1 to 8 inch. Highest market prices. Landreth Machinery Co., Joplin, Mo. 7-20

ANYONE KNOWING OF THE WHEREabouts or recent whereabouts of P. W. Gorman, of the Peerless Self-Closing Faucet Co., and a master plumber of Salt Lake City, please communicate with "Domestic Engineering." Last heard of in New York in 1916. 7-20tf

WE BUY IRON PIPE COUPLINGS—spot cash. How many, either pounds or pieces have you of various sizes? Gwilliam Supply Co., 615 Christian Street, Philadelphia, Pa. 10-6,tf

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W. Lake St., Chicago. tf

## Government Proposals

Treasury Department, Supervising Architect's Office, Washington, D. C., July 19, 1918.—Sealed proposals will be opened in this office at 3 p. m. August 12, 1918, for a new boiler, etc., in the United States Post Office at St. Cloud, Minn., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Custodian at St. Cloud, Minn., in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect. 7-27; 8-3

Treasury Department, Supervising Architect's Office, Washington, D. C., July 15, 1918.—Sealed proposals will be opened in this office at 3 p. m. August 12, 1918, for a woman's New Toilet Room, etc., in the United States Public Building, Cheyenne, Wyoming, in accordance with the specification and drawing, copies of which may be had at this office or at the office of the Custodian, Cheyenne, Wyoming, in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect. 7-27; 8-3

## Books for Your Trade Library.

Sanitation in the Modern Home..... 2.00

Sanitary Sewerage of Buildings..... 1.50

Notes on Heating and Ventilation, Prof. John R. Allen..... 2.50

Practical Steam and Hot Water Heating and Ventilating, A. G. King.... 3.00

A Practical Manual of Steam and Hot Water Heating, Edward R. Pierce.. 2.50

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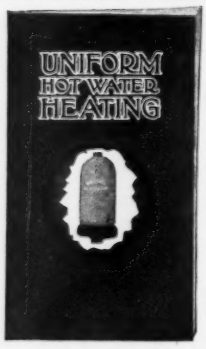


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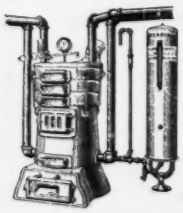

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